

Field ID: 112176 Solid Matrix: Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-1 QC Batch ID: PB-3468-X 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Sampled: Received: 06-21-10 19:40 Sample Weight: 1.2 g Extracted: 06-22-10 19:00 Final Volume: 1 mL Cleaned Up: 06-24-10 01:30 Percent Solids: n/a 06-28-10 18:45 Analyzed: Dilution Factor: 5 Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000	
11104-28-2	Aroclor 1221	BRL	ug/Kg	5,000		
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	5,000	
11097-69-1	Aroclor 1254	11,000	2C (10000)*	ug/Kg	5,000	
11096-82-5	Aroclor 1260	BRL	BRL			
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	5,000		
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	5,000		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	170	120	71 %	30 - 150 %
Column	Decachlorobiphenyl	170	110	66 %	30 - 150 %
Second	Tetrachloro-m -xylene	170	120	71 %	30 - 150 %
Column	Decachlorobiphenyl	170	100	61 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:

112177

Matrix:

Project:

17228

Container:

Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID: Sampled:

134157-2 06-21-10 00:00 QC Batch ID: Instrument ID: PB-3468-X

Received: Extracted: 06-21-10 19:40 06-22-10 19:00

Sample Weight:

GC-11 Agilent 6890 3.1 g

Cleaned Up: Analyzed:

06-24-10 01:30 06-28-10 02:29 Final Volume: Percent Solids: Dilution Factor: 1 mL n/a 50000

Analyst:

CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	19,000,000
11104-28-2	Aroclor 1221	BRL	BRL		
11141-16-5	Aroclor 1232	BRL	BRL		19,000,000
53469-21-9	Aroclor 1242	BRL	BRL		19,000,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	19,000,000
11097-69-1	Aroclor 1254	40,000,000	2C (39000000)*	ug/Kg	19,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	19,000,000
37324-23-5	Aroclor 1262 [†]	BRL	BRL		19,000,000
11100-14-4	Aroclor 1268 [†]	BRL	BRL		19,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	65	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	65	n/a	d	30 - 150 %
Second	Letrachloro-m-xylene	65	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	65	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2**C** Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:

112178

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

PB-3468-X

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-3

QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Sample Weight:

2 g

Extracted: Cleaned Up: 06-22-10 19:00 06-24-10 01:30

Final Volume: Percent Solids:

1 mL n/a

Analyzed: Analyst:

06-28-10 02:53 CRL

· Orconic boniasi
Dilution Factor:

20000

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	12,000,000
11097-69-1	Aroclor 1254	44,000,000 2C (43000000)*	ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	12,000,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	12,000,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	12,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	100	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	100	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	100	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	100	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: 112179 Matrix: Solid 17228 Project: Container: Plastic Bag Environmental Health & Engineering, Inc. Client: Preservation: Cool Laboratory ID: 134157-4 QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 1.9 g Extracted: 06-22-10 19:00 Final Volume: 1 mL

Analyst: CRL

06-24-10 01:30

06-28-10 03:16

Cleaned Up:

Analyzed:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	13,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	13,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	13,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	13,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	13,000,000
11097-69-1	Aroclor 1254	42,000,000 2C (41000000)*	ug/Kg	13,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	13,000,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	13,000,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	13,000,000

Percent Solids:

Dilution Factor:

n/a

20000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	110	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	110	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	110	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	110	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:

112180

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-5

QC Batch ID:

PB-3468-X

Sampled:

.

06-21-10 00:00

Instrument ID: Sample Weight:

GC-11 Agilent 6890

Received: Extracted: 06

06-21-10 19:40 06-22-10 19:00

Final Volume:

6.2 g 1 mL

Cleaned Up: Analyzed: 06-24-10 01:30 06-28-10 03:39 Percent Solids: Dilution Factor:

n/a 50000

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	9,800,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	9,800,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	9,800,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	9,800,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	9,800,000
11097-69-1	Aroclor 1254	47,000,000 2C (43000000)*	ug/Kg	9,800,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	9,800,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	9,800,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	9,800,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	32	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	32	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	32	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	32	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: Project: Client:

112181 17228

Environmental Health & Engineering, Inc.

Matrix: Container:

Solid **Plastic Bag**

Preservation:

Cool PB-3468-X

Laboratory ID: 134157-6

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Instrument ID: Sample Weight: Final Volume:

QC Batch ID:

GC-11 Agilent 6890 5.6 g

Extracted: 06-22-10 19:00 Cleaned Up: 06-24-10 01:30 06-28-10 01:18

Percent Solids: Dilution Factor:

1 mL n/a 10

Analyzed: Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	2,200
11104-28-2	Aroclor 1221	BRL	ug/Kg	2,200
11141-16-5	Aroclor 1232	BRL	ug/Kg	2,200
53469-21-9	Aroclor 1242	BRL	ug/Kg	2,200
12672-29-6	Aroclor 1248	BRL	ug/Kg	2,200
11097-69-1	Aroclor 1254	36,000 e 2C (36000))* ug/Kg	2,200
11096-82-5	Aroclor 1260	BRL	ug/Kg	2,200
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	2,200
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	2,200

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	36	24	66 %	30 - 150 %
Column	Decachlorobiphenyl	36	18	51 %	30 - 150 %
Second	Tetrachloro-m-xylene	36	26	72 %	30 - 150 %
Column	Decachlorobiphenyl	36	17	48 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be BRL reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Indicates concentration exceeded calibration range for the analyte.



Field ID: 112181 Matrix: Solid Plastic Bag 17228 Project: Container: Environmental Health & Engineering, Inc. Preservation: Client: Cool Laboratory ID: 134157-6RA1 QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 5.6 g Extracted: 06-22-10 19:00 Final Volume: 1 mL Cleaned Up: 06-24-10 01:30 Percent Solids: n/a Analyzed: 06-28-10 14:42 Dilution Factor: 20 CRL Analyst:

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,300	
11141-16-5	Aroclor 1232	BRL		ug/Kg	4, 30 0	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	4,300	
11097-69-1	Aroclor 1254	33,000	2C (29000)*	ug/Kg	4,300	
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,300	
37324-23-5	Aroclor 1262 [†]	BRL	BRL			
11100-14-4	Aroclor 1268 [†]	BRL	BRL			

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	36	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	36	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	36	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	36	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: Project:

112182 17228

Matrix:

Client:

Environmental Health & Engineering, Inc.

Container:

Solid Plastic Bag

PB-3468-X

Preservation:

Cool

Laboratory ID: 134157-7

Sampled: Received: Extracted: 06-21-10 00:00 06-21-10 19:40 06-22-10 19:00

Instrument ID: Sample Weight:

QC Batch ID:

GC-11 Agilent 6890

Final Volume:

13 g 1 mL n/a

Cleaned Up: 06-24-10 01:30 06-28-10 01:42 Analyzed:

Percent Solids: Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL		ug/Kg	470		
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	470		
11097-69-1	Aroclor 1254	7,300	e 2C (6900)*	ug/Kg	470		
11096-82-5	Aroclor 1260	BRL	BRL				
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	470			
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	470		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	16	5	32 %	30 - 150 %
Column	Decachlorobiphenyl	16	5	32 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	6	35 %	30 - 150 %
Column	Decachlorobiphenyl	16	4	27 % m	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Indicates concentration exceeded calibration range for the analyte.
- Surrogate recovery outside recommended limits due to sample matrix interference.



Field ID: 112182 Matrix: Solid
Project: 17228 Container: Plastic Bag
Client: Environmental Health & Engineering, Inc. Preservation: Cool
Laboratory ID: 134157-7RA1 QC Batch ID: PB-3468-X

 Laboratory ID:
 134157-7RA1
 QC Batch ID:
 PB-3468-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Sample Weight: Received: 06-21-10 19:40 13 g Extracted: 06-22-10 19:00 Final Volume: 1 mL Cleaned Up: 06-24-10 01:30 Percent Solids: n/a Analyzed: 06-28-10 15:06 Dilution Factor: 10

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	BRL		
11104-28-2	Aroclor 1221	BRL		ug/Kg	940
11141-16-5	Aroclor 1232	BRL		ug/Kg	940
53469-21-9	Aroclor 1242	BRL	BRL		
12672-29-6	Aroclor 1248	BRL		ug/Kg	940
11097-69-1	Aroclor 1254	10,000	2C (9000)*	ug/Kg	940
11096-82-5	Aroclor 1260	BRL		ug/Kg	940
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	940
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	940

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	16	8	52 %	30 - 150 %
Column	Decachlorobiphenyl	16	6	39 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	8	54 %	30 - 150 %
Column	Decachlorobiphenyl	16	8	48 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:112183Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-8
 QC Batch ID:
 PB-3468-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

06-21-10 19:40 Received: Sample Weight: 8.5 g Extracted: 06-22-10 19:00 Final Volume: 1 mL Cleaned Up: 06-24-10 01:30 Percent Solids: n/a 06-28-10 02:05 Dilution Factor: Analyzed: 10

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,400
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,400
11141-16-5	Aroclor 1232	BRL	BRL		
53469-21-9	Aroclor 1242	BRL	BRL		
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,400
11097-69-1	Aroclor 1254	5,800	1C (5700)*	ug/Kg	1,400
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,400
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	1,400	
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	1.400	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	24	19	80 %	30 - 150 %
Column	Decachlorobiphenyl	24	14	57 %	30 - 150 %
Second	Tetrachloro-m-xylene	24	18	78 %	30 - 150 %
Column	Decachlorobiphenyl	24	12	50 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations: BRL Indicates concentration

L Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



CRL

Aroclor 1262

Aroclor 1268

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: 112184 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-9 QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 5 g Extracted: 06-22-10 19:00 Final Volume: 1 mL 06-24-10 01:30 Cleaned Up: Percent Solids: n/a Analyzed: 06-28-10 04:03 Dilution Factor: 50000

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	12,000,000
11097-69-1	Aroclor 1254	51,000,000 2C (49	00000001* ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRI	ug/Kø	12,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	40	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	40	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	40	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	40	n/a	d	30 - 150 %

Method Reference:

37324-23-5

11100-14-4

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

BRL

BRL

ug/Kg

ug/Kg

12,000,000

12,000,000

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112185Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-10
 QC Batch ID:
 PB-3468-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 4 g Extracted: 06-22-10 19:00 Final Volume: 1 mL Cleaned Up: 06-24-10 01:30 Percent Solids: n/a 06-28-10 04:27 Analyzed: Dilution Factor: 50000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	15,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	15,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	15,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	15,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	15,000,000
11097-69-1	Aroclor 1254	38,000,000 2C (37000000)*	ug/Kg	15,000,000
11096-82-5	Aroclor 1260	BRL.	ug/Kg	15,000,000
37324-23-5	Aroclor 1262 †	BRL.	ug/Kg	15,000,000
11100-14-4	Aroclor 1268 T	BRL	ug/Kg	15,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	50	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	50	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	50	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	50	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

3RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112186 Matrix: Solid
Project: 17228 Container: Plastic Bag
Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 134157-11 QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 2.9 g Extracted: 06-22-10 19:00 Final Volume: 1 mL 06-24-10 01:30 Cleaned Up: Percent Solids: n/a

Analyst: CRL

Analyzed:

06-28-10 04:50

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	21,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	21,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	21,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	21,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	21,000,000
11097-69-1	Aroclor 1254	54,000,000 2C (50000000)*	ug/Kg	21,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	21,000,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	21,000,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	21,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	69	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	69	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	69	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	69	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

50000

Dilution Factor:

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112187 Solid Matrix: Plastic Bag 17228 Container: Project: Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-12 QC Batch ID: PB-3485-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 5.4 g 06-30-10 00:30 Extracted: Final Volume: 1 ml. 07-01-10 21:30 Cleaned Up: Percent Solids: n/a 07-07-10 21:59 **Dilution Factor:** 50000 Analyzed:

Analyst:	CRI
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CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	11,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	11,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	11,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	11,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	11,000,000
11097-69-1	Aroclor 1254	67,000,000 2C (62000000)*	ug/Kg	11,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	11,000,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	11,000,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	11,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	37	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	37	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	37	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	37	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112188Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-13
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 3.3 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-07-10 22:23 Analyzed: Dilution Factor: 50000

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	18,000,000
11104-28-2	Aroclor 1221	BRI.		ug/Kg	18,000,000
11141-16-5	Aroclor 1232	BRI.		ug/Kg	18,000,000
53469-21-9	Aroclor 1242	BRI.	BRI.		
12672-29-6	Aroclor 1248	BRI.		ug/Kg	18,000,000
11097-69-1	Aroclor 1254	70,000,000 2	C (67000000)*	ug/Kg	18,000,000
11096-82-5	Aroclor 1260	BRI.		ug/Kg	18,000,000
37324-23-5	Aroclor 1262 †	BRI.	BRI.		
11100-14-4	Aroclor 1268 [†]	BRI.		ug/Kg	18,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	60	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	60	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	60	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	60	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112189Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-14
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 6.5 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-08-10 20:40 Analyzed: Dilution Factor: 10

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	1,900
11104-28-2	Aroclor 1221	BRL	ug/Kg	1,900
11141-16-5	Aroclor 1232	BRL	ug/Kg	1,900
53469-21-9	Aroclor 1242	BRL	ug/Kg	1,900
12672-29-6	Aroclor 1248	BRL	ug/Kg	1,900
11097-69-1	Aroclor 1254	5,100 2C (4)	300)* ug/Kg	1,900
11096-82-5	Aroclor 1260	BRL	ug/Kg	1,900
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	1,900
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	1,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	31	16	52 %	30 - 150 %
Column	Decachlorobiphenyl	31	23	73 %	30 - 150 %
Second	Tetrachloro-m-xylene	31	21	68 %	30 - 150 %
Column	Decachlorobiphenyl	31	27	87 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantilication.

2C Concentration reported from second column.



Field ID:

112190

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Laboratory ID:

134157-15

Cool PB-3485-X

Sampled:

QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Received:

06-21-10 00:00 06-21-10 19:40 06-30-10 00:30

Sample Weight: Final Volume:

13 g 1 mL

Extracted: Cleaned Up: Analyzed:

07-01-10 21:30 07-08-10 07:42 Percent Solids: Dilution Factor:

n/a 10

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	950
11104-28-2	Aroclor 1221	BRL	ug/Kg	950
11141-16-5	Aroclor 1232	BRL	ug/Kg	950
53469-21-9	Aroclor 1242	BRL	ug/Kg	950
12672-29-6	Aroclor 1248	BRL	ug/Kg	950
11097-69-1	Aroclor 1254	2,700 2C (20	500)* ug/Kg	950
11096-82-5	Aroclor 1260	BRL	ug/Kg	950
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	950
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	950

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	16	8	51 %	30 - 150 %
Column	Decachlorobiphenyl	16	11	67 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	5	34 %	30 - 150 %
Column	Decachlorobiphenyl	16	13	85 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be

- reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:112191Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-16
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 3.8 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-07-10 22:46 Analyzed: Dilution Factor: 500

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	160,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	160,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	160,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	160,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	160,000
1109 <i>7-</i> 69-1	Aroclor 1254	790,000 2C (75000	0) ug/Kg	160,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	160,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	160,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	160,000

QC Surrogate Compound		Spiked	Spiked Measured Recovery		QC Limits	
First	Tetrachloro-m -xylene	53	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %	
Second	Tetrachloro-m -xylene	53	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

IRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112192Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-17
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Sample Weight: Received: 06-21-10 19:40 0.64 g 06-30-10 00:30 Final Volume: Extracted: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-08-10 08:06 Dilution Factor: Analyzed: 5 Analyst: CRL

Reporting Limit **CAS Number** Analyte Concentration **Notes** Units 12674-11-2 9,400 Aroclor 1016 BRL ug/Kg 11104-28-2 Aroclor 1221 BRL 9,400 ug/Kg 11141-16-5 Aroclor 1232 BRL 9,400 ug/Kg 53469-21-9 Aroclor 1242 BRL 9,400 ug/Kg 12672-29-6 Aroclor 1248 BRL 9,400 ug/Kg 11097-69-1 Aroclor 1254 30,000 2C (28000) 9,400 ug/Kg 11096-82-5 Aroclor 1260 BRL ug/Kg 9,400 9,400 37324-23-5 Aroclor 1262 BRL ug/Kg Aroclor 1268 9,400 11100-14-4 BRL ug/Kg

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	310	180	58 %	30 - 150 %
Column	Decachlorobiphenyl	310	180	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	310	200	63 %	30 - 150 %
Column	Decachlorobiphenyl	310	230	73 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- 3RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: Project: 112193 17228 Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

nvironmentar meanth & Engineering, me

QC Batch ID:

PB-3485-X

Sampled: Received: 134157-18 06-21-10 00:00 06-21-10 19:40

Instrument ID: Sample Weight: GC-11 Agilent 6890 3.8 g

Extracted: Cleaned Up: Analyzed: 06-30-10 00:30 07-01-10 21:30 07-08-10 13:12 Final Volume:
Percent Solids:

Dilution Factor:

1 mL n/a 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes			
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		u g/K g	310	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		u g/Kg	310	
11097-69-1	Aroclor 1254	2,600	2C (2600)*	ug/Kg	310	
11096-82-5	Aroclor 1260	BRL		ug/Kg	310	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	310		
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	310		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	52	25	48 %	30 - 150 %
Column	Decachlorobiphenyl	52	26	50 %	30 - 150 %
Second	Tetrachloro-m-xylene	52	23	44 %	30 - 150 %
Column	Decachlorobiphenyl	52	38	72 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:

112194

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-19

QC Batch ID:

PB-3485-X

Sampled:

06-21-10 00:00

Instrument ID:

GC-11 Agilent 6890

Reporting Limit

220

220 220

Received: Extracted: 06-21-10 19:40 06-30-10 00:30

Sample Weight: Final Volume: Percent Solids:

5.4 g 1 mL n/a

Units

ug/Kg ug/Kg

1

Cleaned Up: Analyzed: Analyst:

07-01-10 21:30 07-08-10 13:36

Dilution Factor:

CRL

CAS Number Analyte		Concentration	Notes
12674-11-2	Aroclor 1016	BRL	
11104-28-2	Aroclor 1221	BRL	
11141-16-5	Aroclor 1232	BRL	
E2460 21 0	AI 1242	DDI	

OC Surrogato C	omnound	Spiled	Massurad	Pacavani		00	Limite
11100-14-4	Aroclor 1268 [†]			BRL		ug/Kg	220
37324-23-5	Aroclor 1262 [†]	·		BRL		ug/Kg	220
11096-82-5	Aroclor 1260			BRL		ug/Kg	220
11097-69-1	Aroclor 1254		1,500) 2C	(1400)*	ug/Kg	220
12672-29-6	Aroclor 1248			BRL		ug/Kg	220
53469-21-9	Aroclor 1242			BRL		ug/Kg	220
11141-10-3	Alociol 1232			DKL		ug/ng	220

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	37	9	26 % m	30 - 150 %
Column	Decachlorobiphenyl	37	9	23 % m	30 - 150 %
Second	Tetrachloro-m -xylene	37	9	25 % m	30 - 150 %
Column	Decachlorobiphenyl	37	14	37 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery outside recommended limits due to sample matrix interference.



Field ID: 112195 Matrix: Solid 17228 Plastic Bag Project: Container: Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 134157-20 QC Batch ID: PB-3485-X GC-11 Agilent 6890

Sampled: 06-21-10 00:00 Instrument ID: 06-21-10 19:40 Received: Sample Weight: 3.6 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a Analyzed: 07-08-10 14:00 Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes			
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	330	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	330	
11097-69-1	Aroclor 1254	2,800	2C (2600)*	ug/Kg	330	
11096-82-5	Aroclor 1260	BRL		ug/Kg	330	
37324-23-5	Aroclor 1262 [†]	BRL	BRL			
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	330	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	55	19	34 %	30 - 150 %
Column	Decachlorobiphenyl	55	17	31 %	30 - 150 %
Second	Tetrachloro-m -xylene	55	19	34 %	30 - 150 %
Column	Decachlorobiohenyl	55	25	46 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations: Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be

reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentration reported from second column.



Field ID: 112196 Project: 17228

Matrix: Container: Solid **Plastic Bag**

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-21

QC Batch ID:

PB-3485-X

Sampled:

06-21-10 00:00 06-21-10 19:40 Instrument ID: Sample Weight: GC-11 Agilent 6890

Received: Extracted: Cleaned Up:

06-30-10 00:30 07-01-10 21:30

Final Volume:

3.7 g 1 mL

n/a

Analyzed: Analyst:

07-07-10 23:10 CRL

Percent Solids: Dilution Factor:

500

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	160,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	160,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	160,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	160,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	160,000
11097-69-1	Aroclor 1254	1,000,000 2C (970000)	ug/Kg	160,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	160,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	160,000
11100-14-4	Aroclor 1268 [†]	BRL	u g/Kg	160,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	54	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	54	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	54	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	54	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: Project: 112197 17228 Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool PB-3485-X

Laboratory ID: Sampled:

134157-22 06-21-10 00:00 QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 06-21-10 00:00 06-21-10 19:40 06-30-10 00:30 07-01-10 21:30

Sample Weight: Final Volume: 1.1 g 1 mL

Cleaned Up: Analyzed:

07-08-10 08:29

Percent Solids: Dilution Factor:

n/a 5

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	5,500
11104-28-2	Aroclor 1221	BRL	ug/Kg	5,500
11141-16-5	Aroclor 1232	BRL	ug/Kg	5,500
53469-21-9	Aroclor 1242	BRL	ug/Kg	5,500
12672-29-6	Aroclor 1248	BRL	ug/Kg	5,500
11097-69-1	Aroclor 1254	11,000 2C (11000)* ug/Kg	5,500
11096-82-5	Aroclor 1260	BRL	ug/Kg	5,500
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	5,500
11100-14-4	Aroclor 1268	BRL	ug/Kg	5,500

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	180	93	51 %	30 - 150 %
Column	Decachlorobiphenyl	180	90	49 %	30 - 150 %
Second	Tetrachloro-m -xylene	180	110	59 %	30 - 150 %
Column	Decachlorobiphenyl	180	110	60 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

It. Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:

112198

Matrix:

Solid

n/a

1

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-23

QC Batch ID:

PB-3485-X

Sampled: Received: 06-21-10 00:00

Instrument ID: Sample Weight: GC-11 Agilent 6890

Extracted: Cleaned Up: 06-21-10 19:40 06-30-10 00:30 07-01-10 21:30 07-08-10 14:23

Final Volume:

2.5 g 1 mL

Analyzed:

RL

Percent Solids: Dilution Factor:

Analyst: CR	R
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CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	480
11104-28-2	Aroclor 1221	BRL	ug/Kg	480
11141-16-5	Aroclor 1232	BRL	ug/Kg	480
53469-21-9	Aroclor 1242	BRL	ug/Kg	480
12672-29-6	Aroclor 1248	BRL	ug/Kg	480
11097-69-1	Aroclor 1254	5,000 2C (4800)	* ug/Kg	480
11096-82-5	Aroclor 1260	BRL	ug/Kg	480
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	480
1110 0- 14-4	Aroclor 1268 †	BRL	ug/Kg	480

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	80	31	39 %	30 - 150 %
Column	Decachlorobiphenyl	80	33	42 %	30 - 150 %
Second	Tetrachloro-m-xylene	80	31	39 %	30 - 150 %
Column	Decachlorobiphenyl	80	43	54 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:112199Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:CoolLaboratory ID:134157-24OC Batch ID:PB-3485-X

 Laboratory ID:
 134157-24
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

 Received:
 06-21-10 19:40
 Sample Weight:
 1.9 g

 Extracted:
 06-30-10 00:30
 Final Volume:
 1 mL

 Cleaned Up:
 07-01-10 21:30
 Percent Solids:
 n/a

 Analyzed:
 07-08-10 14:47
 Dilution Factor:
 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	630	
11141-16-5	Aroclor 1232	BRL		ug/Kg	630	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	630	
11097-69-1	Aroclor 1254	5,000	2C (4600)*	ug/Kg	630	
11096-82-5	Aroclor 1260	BRL		ug/Kg	630	
37324-23-5	Aroclor 1262 [†]	BRL	BRL			
11100-14-4	Aroclor 1268 ¹	BRL	BRL			

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	110	39	37 %	30 - 150 %
Column	Decachlorobiphenyl	110	39	37 %	30 - 150 %
Second	Tetrachloro-m -xylene	110	39	37 %	30 - 150 %
Column	Decachlorobiphenyl	110	61	57 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



CRL

Aroclor 1254

Aroclor 1260

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

112200 Solid Field ID: Matrix: 17228 Container: **Plastic Bag** Project: Environmental Health & Engineering, Inc. Preservation: Cool Client: 134157-25 QC Batch ID: PB-3485-X Laboratory ID:

Sampled: 06-21-10 00:00 Instrument 1D: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 3.1 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a Analyzed: 07-08-10 19:30 Dilution Factor: 1000

Analyte Reporting Limit **CAS Number** Concentration Notes Units 380,000 12674-11-2 Aroclor 1016 BRL ug/Kg Aroclor 1221 11104-28-2 BRL 380,000 ug/Kg 11141-16-5 Aroclor 1232 BRL 380,000 ug/Kg 53469-21-9 Aroclor 1242 BRL 380,000 ug/Kg 12672-29-6 Aroclor 1248 BRL ug/Kg 380,000

37324-23-5 Aroclor 1262 BRL 380,000 ug/Kg 11100-14-4 Aroclor 1268 **BRL** 380,000 ug/Kg **QC Limits QC Surrogate Compound** Spiked Measured Recovery Tetrachloro-m-xylene d 30 - 150 % n/a Column Decachlorobiphenyl 64 n/a d 30 - 150 %

 First
 Tetrachloro-m-xylene
 64
 n/a
 d
 30 - 150 %

 Column
 Decachlorobiphenyl
 64
 n/a
 d
 30 - 150 %

 Second
 Tetrachloro-m-xylene
 64
 n/a
 d
 30 - 150 %

 Column
 Decachlorobiphenyl
 64
 n/a
 d
 30 - 150 %

Method Reference: Test Meth

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

1,900,000

BRI.

ug/Kg

ug/Kg

380,000

380,000

Results are reported on an as received basis.

Report Notations:

Analyst:

11097-69-1

11096-82-5

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- t Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112201 Matrix: Solid 17228 Project: Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-26 QC Batch ID: PB-3485-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 4.1 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a

Analyst: CRL

07-08-10 19:53

Analyzed:

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	BRL		
11104-28-2	Aroclor 1221	BRL		ug/Kg	290,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	290,000
53469-21-9	Aroclor 1242	BRL	BRL		
12672-29-6	Aroclor 1248	BRL		ug/Kg	290,000
11097-69-1	Aroclor 1254	1,400,000	2C (1300000)*	ug/Kg	290,000
11096-82-5	Aroclor 1260	BRL	BRL		
37324-23-5	Aroclor 1262 †	BRL	BRL		
11100-14-4	Aroclor 1268	BRL		ug/Kg	290,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	48	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	48	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	48	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	48	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Dilution Factor:

1000

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112202 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool PB-3485-X Laboratory ID: 134157-27 QC Batch ID:

Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Sample Weight: 06-21-10 19:40 Received: 3.7 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-08-10 20:17 Dilution Factor: Analyzed: 1000

Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	320,000
11104-28-2	Araclar 1221	BRL	ug/Kg	320,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	320,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	320,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	320,000
11097-69-1	Aroclor 1254	1,600,000 2C (1500000)*	ug/Kg	320,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	320,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	320,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	320,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	53	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %	
Second	Tetrachloro-m -xylene	53	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution. d



Field ID:112203Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-28
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 2.2 g 06-30-10 00:30 Extracted: Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-08-10 15:10 Dilution Factor: Analyzed: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	550	
11104-28-2	Aroclor 1221	BRL	,	ug/Kg	550	
11141-16-5	Aroclor 1232	BRL		ug/Kg	550	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	550	
1109 <i>7-</i> 69-1	Aroclor 1254	2,600	2C (2500)*	ug/Kg	550	
11096-82-5	Aroclor 1260	BRL		ug/Kg	550	
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	550	
11100-14-4	Aroclor 1268 T	BRL		ug/Kg	550	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	91	23	25 % m	30 - 150 %
Column	Decachlorobiphenyl	91	28	30 %	30 - 150 %
Second	Tetrachloro-m -xylene	91	23	26 % m	30 - 150 %
Column	Decachlorobiphenyl	91	31	34 %	30 - 150 %

Method Reference: Test Method

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- m Surrogate recovery outside recommended limits due to sample matrix interference.



Field ID: 112204 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool QC Batch ID: Laboratory ID: 134157-29 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

 Received:
 06-21-10 19:40
 Sample Weight:
 2.3 g

Extracted: 06-30-10 00:30 Final Volume: 1 mL
Cleaned Up: 07-01-10 21:30 Percent Solids: n/a
Analyzed: 07-08-10 01:42 Dilution Factor: 500
Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL	BRL		
11104-28-2	Aroclor 1221	BRL		ug/Kg	260,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	260,000
53469-21-9	Aroclor 1242	BRL	BRL		
12672-29-6	Aroclor 1248	BRL		ug/Kg	260,000
11097-69-1	Aroclor 1254	1,700,000	2C (1500000)*	ug/Kg	260,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	260,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	260,000	
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	260,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	88	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	88	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	88	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	88	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112205Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-30
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 1.6 g Extracted: 06-30-10 00:30 Final Volume: 1 mL 07-01-10 21:30 Cleaned Up: Percent Solids: n/a 07-08-10 02:09 Analyzed: Dilution Factor: 200

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	150,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	150,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	150,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	150,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	150,000
11097-69-1	Aroclor 1254	1,600,000 2C (1400000)*	ug/Kg	150,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	150,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	150,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	150,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	120	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	120	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	120	n/a	ď	30 - 150 %
Column	Decachlorobiphenyl	120	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



112206 Field ID: Matrix: Solid 17228 Plastic Bag Project: Container: Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-31 QC Batch ID: PB-3485-X

 Sampled:
 06-21-10
 00:00
 Instrument ID:
 GC-11 Agilent 6890

 Received:
 06-21-10
 19:40
 Sample Weight:
 2.9 g

 Extracted:
 06-30-10
 00:30
 Final Volume:
 1 ml

 Extracted:
 06-30-10
 00:30
 Final Volume:
 1 mL

 Cleaned Up:
 07-01-10
 21:30
 Percent Solids:
 n/a

 Analyzed:
 07-08-10
 15:34
 Dilution Factor:
 1

 Analyst:
 CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	420	
11104-28-2	Aroclor 1221	BRL		ug/Kg	420	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	420	
11097-69-1	Aroclor 1254	1,700	2C (1500)*	ug/Kg	420	
11096-82-5	Aroclor 1260	BRL	· ·	ug/Kg	420	
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	420	
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	420		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	69	22	32 %	30 - 150 %
Column	Decachlorobiphenyl	69	29	42 %	30 - 150 %
Second	Tetrachloro-m-xylene	69	25	36 %	30 - 150 %
Column	Decachlorobiphenyl	69	32	47 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 112207 Matrix: Solid 17228 Project: Container: **Plastic Bag** Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-32 QC Batch ID: PB-3491-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 1.2 g Extracted: 07-01-10 20:00 Final Volume: 1 mL 07-01-10 14:00 Cleaned Up: Percent Solids: n/a

Analyst: CRL

Analyzed:

07-08-10 08:53

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000
53469-21-9	Aroclor 1242	BRL	· ····	ug/Kg	5,000
12672-29-6	Aroclor 1248	7,200	IC (6600)*	ug/Kg	5,000
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	5,000
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	5,000
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	5,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	170	74	44 %	30 - 150 %
Column	Decachlorobiphenyl	170	67	40 %	30 - 150 %
Second	Tetrachloro-m-xylene	170	68	41 %	30 - 150 %
Column	Decachlorobiphenyl	170	81	48 %	30 - 150 %

Method Reference: Test Method

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

L Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Dilution Factor:

5

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID:

112208

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-33

QC Batch ID: Instrument ID: PB-3491-X

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Sample Weight:

GC-11 Agilent 6890 1.5 g

Extracted: Cleaned Up: 07-01-10 20:00 07-01-10 14:00 Final Volume: Percent Solids: Dilution Factor: 1 mL n/a 5

Analyzed:

07-08-10 09:16

CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	3,900
11104-28-2	Aroclor 1221	BRL	u g /Kg	3,900
11141-16-5	Aroclor 1232	BRL	ug/Kg	3,900
53469-21-9	Aroclor 1242	BRL	ug/Kg	3,900
12672-29-6	Aroclor 1248	9,500 1C (9300)*	ug/Kg	3,900
11097-69-1	Aroclor 1254	8RL	ug/Kg	3,900
11096-82-5	Aroclor 1260	BRL	ug/Kg	3,900
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	3,900
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	3,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	130	56	43 %	30 - 150 %
Column	Decachlorobiphenyl	130	57	44 %	30 - 150 %
Second	Tetrachloro-m-xylene	130	60	46 %	30 - 150 %
Column	Decachlorobiphenyl	130	73	56 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 112209 Solid Matrix: 17228 Project: Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 134157-34 QC Batch ID: PB-3491-X 06-21-10 00:00 GC-11 Agilent 6890

Sampled: Instrument ID: Received: 06-21-10 19:40 Sample Weight: 4.4 g Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 03:00 Dilution Factor: 20000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	5,400,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	5,400,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	5,400,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	5,400,000
12672-29-6	Araclor 1248	15,000,000 1C (12000000	ug/Kg	5,400,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	5,400,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	5,400,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	5,400,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	5,400,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	45	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	45	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	45	n/a	d	30 - 150 %
Calumn	Decachlorobiphenyl	45	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID:112210Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-35
 QC Batch ID:
 PB-3491-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 2.8 g Final Volume: Extracted: 07-01-10 20:00 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 03:23 Dilution Factor: 20000 Analyst: **CRL**

Reporting Limit **CAS Number** Concentration Notes Units Analyte 12674-11-2 Aroclor 1016 BRL ug/Kg 8,700,000 11104-28-2 Aroclor 1221 BRL ug/Kg 8,700,000 11141-16-5 Aroclor 1232 BRL ug/Kg 8,700,000 ug/Kg 8,700,000 53469-21-9 Aroclor 1242 BRL 21,000,000 8,700,000 12672-29-6 Aroclor 1248 (17000000)* ug/Kg

11097-69-1 Aroclor 1254 BRL ug/Kg 8,700,000 8,700,000 11096-82-5 Aroclor 1260 BRL ug/Kg Aroclor 1262 8,700,000 37324-23-5 BRL ug/Kg Aroclor 1268 8,700,000 11100-14-4 BRL ug/Kg

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	72	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	72	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	72	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	72	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112211 Solid Matrix: 17228 Container: **Plastic Bag** Project: Client: Environmental Health & Engineering, Inc. Preservation: Cool

134157-36 QC Batch ID: PB-3491-X Laboratory ID: Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 12 g Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 03:47 Dilution Factor: 50000

CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	4,800,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	4,800,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	4,800,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	4,800,000
12672-29-6	Aroclor 1248	16,000,000 1C (14000000)*	ug/Kg	4,800,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	4,800,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	4,800,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	4,800,000
11100-14-4	Aroclor 1268 T	BRL	ug/Kg	4,800,000

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	16	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	16	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	16	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	16	n/a	d	30 - 150 %

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Method Reference:

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be Report Notations:

reliably quantified under routine faboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

1C Concentration reported from first column.

Surrogate recovery not measurable due to required sample dilution.



Field ID:112212Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-37
 QC Batch ID:
 PB-3491-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

06-21-10 19:40 Sample Weight: Received: 10 g Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a 07-08-10 04:10 Analyzed: Dilution Factor: 50000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	5,900,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	5,900,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	5,900,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	5,900,000
12672-29-6	Aroclor 1248	17,000,000 1C (14000000)*	ug/Kg	5,900,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	5,900,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	5,900,000
37324-23-5	Aroclor 1262 1	BRL	ug/Kg	5,900,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	5,900,000

QC Surrogate Compound		QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	20	n/a	d	30 - 150 %		
Column	Decachlorobiphenyl	20	n/a	d	30 - 150 %		
Second	Tetrachloro-m-xylene	20	n/a	d	30 - 150 %		
Column	Decachlorobiphenyl	20	n/a	d	30 - 150 %		

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Report Notations:

- IRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112213 Solid Matrix: Project: 17228 Container: **Plastic Bag** Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-38 QC Batch ID: PB-3491-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 7.6 g Received: 06-21-10 19:40 Sample Weight: Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 04:34 Dilution Factor: 50000 **CRL**

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	7,900,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	7,900,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	7,900,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	7,900,000
12672-29-6	Aroclor 1248	9,900,000 1C (8100000)*	ug/Kg	7,900,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	7,900,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	7,900,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	7,900,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	7,900,000

QC Surrogate	QC Surrogate Compound		QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	26	n/a	d	30 - 150 %		
Column	Decachlorobiphenyl	26	n/a	d	30 - 150 %		
Second	Tetrachloro-m-xylene	26	n/a	d	30 - 150 %		
Column	Decachlorobiphenyl	26	n/a	d	30 - 150 %		

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: Project:

112214

Matrix:

Solid

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

n/a

Laboratory ID:

134157-39

QC Batch ID:

PB-3491-X

Sampled:

06-21-10 00:00

Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 06-21-10 19:40 07-01-10 20:00

Sample Weight: Final Volume:

2.4 g 1 mL

Cleaned Up: Analyzed:

07-01-10 14:00 07-08-10 15:58 Percent Solids: Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	500
11104-28-2	Aroclor 1221	BRL	ug/Kg	500
11141-16-5	Aroclor 1232	BRL	ug/Kg	500
53469-21-9	Aroclor 1242	BRL	ug/Kg	500
12672-29-6	Aroclor 1248	4,400 1C (2900)*	ug/Kg	50 0
11097-69-1	Aroclor 1254	BRL	ug/Kg	500
11096-82-5	Aroclor 1260	BRL	ug/Kg	500
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	50 0
11100-14-4	Aroclor 1268 *	BRL	ug/Kg	500

QC Surrogate Compound		Surrogate Compound Spiked M		Recovery	QC Limits	
First	Tetrachloro-m-xylene	82	61	74 %	30 - 150 %	
Column	Decachlorobiphenyl	82	87	105 %	30 - 150 %	
Second	Tetrachloro-m-xylene	82	57	69 %	30 - 150 %	
Column	Decachlorobiphenyl	82	84	102 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 112215 Matrix: Solid Project: 17228 Container: Plastic Bag Environmental Health & Engineering, Inc. Client: Preservation: Cool 134157-40 QC Batch ID: PB-3491-X Laboratory ID:

06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Sampled: Received: 06-21-10 19:40 Sample Weight: 0.32 g 07-01-10 20:00 Final Volume: Extracted: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 16:21 Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	3,800
11104-28-2	Aroclor 1221	BRL	ug/Kg	3,800
11141-16-5	Aroclor 1232	BRL	ug/Kg	3,800
53469-21-9	Aroclor 1242	BRI.	ug/Kg	3,800
12672-29-6	Aroclor 1248	7,400 2C (61	00)* ug/Kg	3,800
11097-69-1	Aroclor 1254	BRL	ug/Kg	3,800
11096-82-5	Aroclor 1260	BRL	ug/Kg	3,800
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	3,800
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	3,800

QC Surrogate Compound		Surrogate Compound Spiked Measured		Recovery	QC Limits	
First	Tetrachloro-m-xylene	620	480	76 %	30 - 150 %	
Column	Decachlorobiphenyl	620	810	131 %	30 - 150 %	
Second	Tetrachloro-m -xylene	620	470	75 %	30 - 150 %	
Column	Decachlorobiphenyl	620	680	108 %	30 - 150 %	

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:

112216

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-41

QC Batch ID:

PB-3491-X

Sampled:

06-21-10 00:00

Instrument ID:

GC-11 Agilent 6890

Received: Extracted: Cleaned Up: 06-21-10 19:40 07-01-10 20:00

Sample Weight: Final Volume:

5 g 1 mL

n/a

1

Analyzed:

07-01-10 14:00 07-08-10 18:42 Percent Solids: Dilution Factor:

Ar

nalyst:	CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	240	
11141-16-5	Aroclor 1232	BRL		ug/Kg	240	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	360	1C (290)*	ug/Kg	240	
11097-69-1	Aroclor 1254	620	1C (550)*	ug/Kg	240	
11096-82-5	Aroctor 1260	BRL		ug/Kg	240	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	240		
11100-14-4	Aroclor 1268	BRL		ug/Kg	240	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	40	18	45 %	30 - 150 %
Column	Decachlorobiphenyl	40	34	85 %	30 - 150 %
Second	Tetrachloro-m-xylene	40	16	40 %	30 - 150 %
Column	Decachlorobiphenyl	40	34	85 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: **112217**Project: **17228**

Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID: Sampled:

134157-42 06-21-10 00:00 QC Batch ID: Instrument ID:

Dilution Factor:

PB-3491-X GC-11 Agilent 6890

Received: **06-21** Extracted: **07-01**

06-21-10 19:40 07-01-10 20:00

Sample Weight: 4.2 g
Final Volume: 1 mL
Percent Solids: n/a

Cleaned Up: Analyzed: 07-01-10 14:00 07-08-10 19:06

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRI.	BRL.				
11104-28-2	Aroclor 1221	8RL		ug/Kg	280		
11141-16-5	Aroclor 1232	8RL	BRL				
53469-21-9	Aroclor 1242	BRL	8RL				
12672-29-6	Aroclor 1248	880	1C (610)*	ug/Kg	280		
11097-69-1	Aroclor 1254	8RL		ug/Kg	280		
11096-82-5	Aroclor 1260	BRL		ug/Kg	280		
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	280			
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	280		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	47	21	44 %	30 - 150 %
Column	Decachlorobiphenyl	47	23	49 %	30 - 150 %
Second	Tetrachloro-m -xylene	47	18	38 %	30 - 150 %
Column	Decachlorobiphenyl	47	19	40 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

RL. Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: 112218 Matrix: Solid Plastic Bag 17228 Container: Project: Environmental Health & Engineering, Inc. Preservation: Cool Client: OC Batch ID: PB-3491-X 134157-43 Laboratory ID: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Sampled: Received: 06-21-10 19:40 Sample Weight: 9.6 g Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Dilution Factor: 200 Analyzed: 07-08-10 10:27 Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	25,000
11104-28-2	Aroclor 1221	BRL.	ug/Kg	25,000
11141-16-5	Aroclor 1232	BRL.	ug/Kg	25,000
53469-21-9	Aroclor 1242	BRL.	ug/Kg	25,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	25,000
11097-69-1	Aroclor 1254	190,000 2C (170000)	ug/Kg	25,000
11096-82-5	Aroclor 1260	BRL.	ug/Kg	25,000
37324-23-5	Aroclor 1262 [†]	BRL.	ug/Kg	25,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	25,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	21	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	21	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	21	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	21	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112219Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-44
 QC Batch ID:
 PB-3491-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

06-21-10 19:40 Received: Sample Weight: 2 g Extracted: 07-01-10 20:00 Final Volume: 1 mL 07-01-10 14:00 Cleaned Up: Percent Solids: n/a 07-08-10 10:51 Dilution Factor: 1000 Analyzed:

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL		ug/Kg	590,000		
11104-28-2	Aroclor 1221	BRL		ug/Kg	590,000		
11141-16-5	Aroclor 1232	BRL		ug/Kg	590,000		
53469-21-9	Aroclor 1242	BRL		ug/Kg	590,000		
12672-29-6	Aroclor 1248	BRL		ug/Kg	590,000		
11097-69-1	Aroclor 1254	4,000,000	2C (3600000)*	ug/Kg	590,000		
11096-82-5	Aroclor 1260	2,000,000	2,000,000 2C (1200000)*				
37324-23-5	Aroclor 1262 [†]	BRL	BRL				
11100-14-4	Aroclor 1268 †	BRL.		ug/Kg	590,000		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	99	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	99	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	99	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	99	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations: E

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:

112220

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-45

QC Batch ID:

PB-3491-X

Sampled: Received: 06-21-10 00:00

Instrument ID: Sample Weight: GC-11 Agilent 6890

Extracted:

06-21-10 19:40 07-01-10 20:00

Final Volume:

3.2 g

Cleaned Up:

07-01-10 14:00 07-08-10 11:14 Percent Solids:

1 mL n/a

Analyzed: Analyst:

CRL

Dilution Factor: 5

CAS Number	Analyte	Concentration Not	es	Units	Reporting Limit	
12674-11-2	Aroctor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,900	
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,900	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,900	
11097-69-1	Aroclor 1254	6,800 2C	(5600)*	ug/Kg	1,900	
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,900	
37324-23-5	Aroclor 1262 †	BRL	BRL			
11100-14-4	Aroclor 1268 1	BRL		ug/Kg	1,900	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	62	39	62 %	30 - 150 %
Column	Decachlorobiphenyl	62	48	77 %	30 - 150 %
Second	Tetrachloro-m-xylene	62	39	62 %	30 - 150 %
Column	Decachlorobiphenyl	62	76	122 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentration reported from second column. 2C



Field ID: 112221 17228 Project: Client: Environmental Health & Engineering, Inc. Matrix: Solid Container: Plastic Bag Preservation: Cool

134157-46 Laboratory ID:

QC Batch ID: PB-3491-X Instrument ID:

06-21-10 00:00 Sampled: Received: 06-21-10 19:40 Extracted: 07-01-10 20:00 Cleaned Up: 07-01-10 14:00

GC-11 Agilent 6890 Sample Weight: 2.6 g Final Volume: 1 mL

Analyzed: 07-08-10 16:45 Percent Solids: n/a Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL		ug/Kg	470		
11104-28-2	Aroclor 1221	BRL		ug/Kg	470		
11141-16-5	Aroclor 1232	BRL		ug/Kg	470		
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	470		
11097-69-1	Aroclor 1254	2,900	1C (2600)*	ug/Kg	470		
11096-82-5	Aroclor 1260	BRL		ug/Kg	470		
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	470			
11100-14-4	Aroclor 1268 [†]	BRL	BRL				

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	78	30	39 %	30 - 150 %
Column	Decachlorobiphenyl	78	63	82 %	30 - 150 %
Second	Tetrachloro-m -xylene	78	26	33 %	30 - 150 %
Column	Decachlorobiphenyl	78	. 59	76 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID:

112222

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-47

QC Batch ID:

PB-3491-X

Sampled:

06-21-10 00:00

Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 06-21-10 19:40 07-01-10 20:00

Sample Weight: Final Volume:

26 g

Cleaned Up:

07-01-10 14:00 07-08-10 12:49

Percent Solids: Dilution Factor:

1 mL n/a 10

Analyzed: Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	460
11104-28-2	Aroclor 1221	BRL.	ug/Kg	460
11141-16-5	Aroclor 1232	BRL	ug/Kg	460
53469-21-9	Aroclor 1242	BRL.	ug/Kg	460
12672-29-6	Aroclor 1248	1,600 1C (1500)*	ug/Kg	460
11097-69-1	Aroclor 1254	BRL	ug/Kg	460
11096-82-5	Aroclor 1260	BRL	ug/Kg	460
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	460
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	460

QC Surrogate Compound First Tetrachloro-m-xylene		Spiked	Measured	Recovery	QC Limits
		8	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	8	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	8	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	8	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column.
- Surrogate recovery not measurable due to required sample dilution.



Project Narrative

Project: Client: 17228

Environmental Health & Engineering, Inc.

Lab ID: Received: 134157

06-21-10 19:40

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 8082 Non-conformance: Samples 134157-2 through -5, -6RA1, -9 through -13, -16, -21, -25, -26, -27, -29, -30, -34 through -38, -43 and -44. Samples did not have measureable surrogate recoveries due to required sample dilution.
- 2. EPA 8082 Non-conformance: Samples 134157-6 and -7. Reported results for selected analytes exceeded the high standard of the associated calibration curve. Results are estimated. Samples were reanalyzed and reported with all analytes within calibration.
- 3. EPA 8082 Note: Samples 134157-1 through -17, -21, -22, -25, -26, -27, -29, -30, -32 through -38, -43, -44, -45, -47, -6RA1 and -7RA1. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- 4. Samples 134157-1 through -47 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
- EPA 8082 Non-conformance: Laboratory control sample (LCS) analytes Aroclor 1260 and Aroclor 1016 were outside recommended recovery limits for QC batch PB-3491-X
- 6. EPA 8082 Non-conformance: Laboratory control sample (LCS) analyte Aroclor 1260 had an RPD recovery outside recommended recovery limits for QC batch PB-3491-X
- 7. EPA 8082 Non-conformance: Sample 134157-28. Sample had a surrogate recovery below recommended recovery limits due to sample matrix interference. No additional sample was available for reanalysis.

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Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 6/21/10

From:	Environmental Health and Engineering,	inc.
	117 Fourth Avenue	

SAMPLE ID	SAMPLETYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
For EH & E Da	ta Coordinator - Uf	RGENT DATA 75	
		overed by EH&E Purchase Order # 17278	
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H		sia matter places refer to EUSE Brolest # 17228	
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		117 Fourth Avenue	

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	Bulk	BULL PCBs EPA 8082		

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112190	1	√	
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Page 59 of 70

Environmental Health &

CHAIN OF CUSTODY FORM

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DATE: 6/21/10

Engineering, inc. FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue Needham, MA 02494-2725 GWA Please send invoices to ATTN: Accounts Payable Please send reports to ATTN: Data Coordinator in all correspondence regarding this matter, please refer to EH&E Project # 17228

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
112191	Bulk	PCBS EPA 8082	
112192			
112193			
112194			
112195			
112196			
112197			-
112198			
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112707	BUK	EPA 8082 PCBs	
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	∏ Fax re	sults 781-247-4305	
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Each sig	natory please	return one copy of this form to the above	n. Inc. Date: 6/21/10
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Received	by:	of Environmental Health & Engineering	Page of

Page ____ of ____



Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA 8082

QC Batch ID:

PB-3468-X

Matrix: Units:

Soil ug/Kg Instrument ID:

GC-11 Agilent 6890 Instrument ID:

Extracted: Cleaned Up:

06-22-10 19:00 06-23-10 01:30

Extracted: Cleaned Up: GC-11 Agilent 6890 06-22-10 19:00 06-23-10 01:30 06-25-10 04:34

Analyzed: Analyst:

06-25-10 04:10 CRL

Analyzed: Analyst:

CRL

		i		LCS			LCS Duplicate								
CAS Number	Analyte	Spiked	Mea	sured	Reco	overy	Spiked	Mea	sured	Reco	very	RI	PD	QC Lin	nits
	·		1st Col	2nd Cal	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	150	81%	91%	170	170	190	101%	113%	22 %	22 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	190	200	113%	119%	170	200	210	120%	126%	6%	6%	40 - 140%	30 %

QC Surrogate Compound		Surrogate Recovery										QC Limits
Tetrachloro-m -xylene	6.7	7 4.1 3.9 62% 59% 6.7 5.4 5.4 81% 81%								30 - 150 %		
Decachlorobiphenyl	6.7	8.8	9.6	133%	144%	6.7	9.1	9.9	137%	149%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category: QC Batch ID: EPA Method 8082

Matrix:

PB-3468-X Soil Instrument ID:

GC-11 Agilent 6890

Extracted: Cleaned Up: 06-22-10 19:00 06-23-10 01:30

Analyzed:

06-23-10 01:30 06-25-10 03:47

Analyst:

CRL

CAS Number	Analyte	Concentration Note	es Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Araclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 1	BRL	ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.8	73 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	8.6	129 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	5.2	78 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	9.5	143 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA 8082

Instrument ID: Extracted:

GC-11 Agilent 6890 Instrument ID:

GC-11 Agilent 6890

QC Batch ID: Matrix: PB-3485-X Soil

Extracted: Cleaned Up: 06-30-10 00:30 07-01-10 21:30 Extracted: **06-30-10 00:30**Cleaned Up: **07-01-10 21:30**

Units:

ug/Kg

Cleaned Up: **07-01-10 21:30**Analyzed: **07-06-10 13:07**

Cleaned Up: Analyzed: 07-01-10 21:30 07-06-10 13:31

Analyst:

CRL

Analyst:

. CRL

		LCS						LCS Duplicate							
CAS Number	Analyte	Spiked	Mea	sured		overy	Spiked	Mea	sured	Reco	very	RI		QC Lin	nits
	·		1st Col	2nd Col	ist Col	2nd Col		1st Col	2nd Cal	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	130	78%	79%	170	140	140	85%	83%	9%	6%	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	140	150	87%	89%	170	150	150	88%	90%	2 %	1%	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	overy				QC Limits
Tetrachloro-m-xylene	6.7	4.4	4.4	67%	66%	6.7	4.8	4.6	73%	69%	30 - 150 %
Decachlorobiphenyl	6.7	6.1	6.8	92%	102%	6.7	6.2	6.9	94%	104%	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category: QC Batch ID: EPA Method 8082

Matrix:

PB-3485-X

Soil

Instrument ID:

GC-11 Agilent 6890

Extracted:

06-30-10 00:30

Cleaned Up:

07-01-10 21:30

Analyzed: Analyst: 07-06-10 12:33 CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRI.		ug/Kg	40
11104-28-2	Aroclor 1221	BRI,		ug/Kg	40
11141-16-5	Aroclor 1232	BRI.		ug/Kg	40
53469-21-9	Aroclor 1242	BRL.		ug/Kg	40
12672-29-6	Aroclor 1248	BRI.		ug/Kg .	40
11097-69-1	Aroclor 1254	BRI,		ug/Kg	40
11096-82-5	Aroclor 1260	BRI,		ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRI.		ug/Kg	40
11100-14-4	Aroclor 1268	BRI.		ug/Kg	40

QC Surrogate	· Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.7	71 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.3	95 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	4.5	67 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.8	102 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA 8082

QC Batch ID: PB-3491-X Instrument ID: Extracted: Analyzed:

Analyst:

GC-11 Agilent 6890 Instrument ID: GC-11 Agilent 6890

Matrix: Units:

Soil

Cleaned Up:

07-01-10 20:00 07-03-10 14:00 Extracted: Cleaned Up: 07-01-10 20:00 07-03-10 14:00

07-06-10 14:18

CRL

Analyzed: Analyst:

07-06-10 14:41 CRL

Units:	ug/Kg	

			LCS					LCS Duplicate						_	•
CAS Number	Analyte	Spiked	Mea	sured	Reco	very	Spiked	Mea	sured	Reco	very	RI	PD	QC Lir	mits
	·	1	Ist Col	2nd Col	1st Col	2nd Col		1st Col	2nd Cal	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	70	<i>7</i> 1	42%	43%	170	61	62	37% q		14 %	14 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	230	290	141% q	175% q	170	130	140	80%	86%	55 % q	68 % u	40 - 140%	30 %

QC Surrogate Compound					Surra	gate Rec	overy				QC Limits
Tetrachloro-m -xylene	6.7	4.3	4.1	65%	62%	6.7	4.6	4.4	69%	66%	30 - 150 %
Decachlorobiphenyl	6.7	8.1	6.7	121%	101%	6.7	6.9	7.1	104%	107%	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

Recovery outside recommended limits.



Quality Control Report Method Blank

Category: QC Batch ID: EPA Method 8082

Matrix:

Soil

PB-3491-X

Instrument ID: Extracted:

GC-11 Agilent 6890 07-01-10 20:00

Cleaned Up: Analyzed:

07-03-10 14:00 07-06-10 13:54

Analyst: **CRL**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	80
11096-82-5	Aroclor 1260	BRI.		ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL	,	ug/Kg	40

QC Surrogat	e Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.8	72 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.9	89 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	4.6	69 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.8	88 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT

Department of Health Services, PH-0586

Potable Water, Wastewater, Solid Waste and Soil

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/Out_State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Potable Water and Non-Potable Water

http://public.dep.state.ma.us/labcert/labcert.aspx

Asbestos Analytical Services, Class A

Department of Labor, Division of Occupational Safety, AA000195 http://www.mass.gov/dos/forms/la-rpt_list_aa.pdf

NEW HAMPSHIRE

Department of Environmental Services, 202708 http://www4.egov.nh.gov/DES/NHELAP

Potable Water, Non-Potable Water, Solid and Chemical Materials

NEW YORK

Department of Health, 11754

Potable Water, Non-Potable Water, Solid and Hazardous Waste

http://www.wadsworth.org/labcert/elap/comm.html

RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

http://www.health.ri.gov/labs/outofstatelabs.pdf
U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

VERMONT

Department of Health, VT-87643

http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

Potable Water



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)		Non-Potable Water (Wastewater)	
Analyte	Method	Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1	Antimony	EPA 200.7
1,2-Dibromoethane	EPA 504.1	Antimony	EPA 200.8
Alkalinity, Total	SM 2320-B	Arsenic	EPA 200.7
Antimony	EPA 200.8	Arsenic	EPA 200.8
Arsenic	EPA 200.8	Beryllium	EPA 200.7
Barium	EPA 200.7	Beryllium	EPA 200.8
Barium	EPA 200.8	Beta-BHC	EPA 608
Beryllium	EPA 200.7	Biochemical Oxygen Demand	SM 5210-B
Beryllium	EPA 200.8	Cadmium	EPA 200.7
Cadmium	EPA 200.7	Cadmium	EPA 200.8
Cadmium	EPA 200.7	Calcium	EPA 200.7
Calcium	EPA 200.7	Chemical Oxygen Demand	SM 5220-D
Chlorine, Residual Free	SM 4500-CL-G	Chlordane	EPA 608
Chromium	EPA 200.7	Chloride	EPA 300.0
	EPA 200.7	Chlorine, Total Residual	SM 4500-CL-G
Copper	EPA 200.7 EPA 200.8	Chromium	EPA 200.7
Copper		Chromium	
Cyanide, Total	Lachat 10-204-00-1-A	Cobalt	EPA 200.8 EPA 200.7
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223		
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G	Cobalt	EPA 200.8
Fecal Coliform (Source Water)	MF SM 9222-D	Copper	EPA 200.7
Fluoride	EPA 300.0	Copper	EPA 200.8
Fluoride	SM 4500-F-C	Cyanide, Total	Lachat 10-204-00-1-A
Heterotrophic Plate Count	SM 9215-B	DDD	EPA 608
Lead	EPA 200.8	DDE DDT	EPA 608
Mercury	EPA 245.1		EPA 608
Nickel	EPA 200.7	Delta-BHC	EPA 608
Nickel	EPA 200.8	Dieldrin	EPA 608
Nitrate-N	EPA 300.0	Endosulfan I	EPA 608
Nitrate-N	Lachat 10-107-04-1-C	Endosulfan II	EPA 608
Nitrite-N	EPA 300.0	Endosulfan Sulfate	EPA 608
Nitrite-N	Lachat 10-107-04-1-C	Endrin	EPA 608
pH	SM 4500-H-B	Endrin Aldehyde	EPA 608
Selenium	EPA 200.8	Fluoride	EPA 300.0
Silver	EPA 200.7	Gamma-BHC	EPA 608
Silver	EPA 200.8	Hardness (CaCO3), Total	EPA 200.7
Sodium	EPA 200.7	Hardness (CaCO3), Total	SM 2340-B
Sulfate	EPA 300.0	Heptachlor	EPA 608
Thallium	EPA 200.8	Heptachlor Epoxide	EPA 608
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223	lron	EPA 200.7
Total Coliform (Treatment and Distribution)	MF SM 9222-B	Kjeldahl-N	Lachat 10-107-06-02-D
Total Dissolved Solids	SM 2540-C	Lead	EPA 200.7
Trihalomethanes	EPA 524.2	Magnesium	EPA 200.7
Turbidity	SM 2130-B	Manganese	EPA 200.7
Volatile Organic Compounds	EPA 524.2	Manganese	EPA 200.8
		Mercury	EPA 245.1
Non-Potable Water (Wastewater)		Molybdenum	EPA 200.7
Analyte	Method	Molybdenum	EPA 200.8
		Nickel	EPA 200.7
Aldrin	EPA 608	Nickel	EPA 200.8
Alkalinity, Total	SM 2320-B	Nitrate-N	EPA 300.0
Alpha-BHC	EPA 608	Nitrate-N	Lachat 10-107-04-1-C
Aluminum	EPA 200.7	Non-Filterable Residue	SM 2540-D
Ammonia-N	Lachat 10-107-06-1-B	Oil and Grease	EPA 1664



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastewater)	
Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
pΗ	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B
Phosphorus, Total	Lachat 10-115-01-1-C
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8



Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

August 18, 2010

Mr. Todd Megrath Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494

LABORATORY REPORT

Project:

17228

Lab ID:

135433

Received:

08-11-10

Dear Todd:

Enclosed are the analytical results for the above referenced project. The project was processed for Priority turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC or NVLAP standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen

Operations Manager

EHJ/elm Enclosures



Sample Receipt Report

Project: 17228 Client:

Environmental Health & Engineering, Inc.

Delivery: Hand

Temperature: n/a Chain of Custody: Present

Lab ID: 135433

Airbill: n/a Lab Receipt: 08-11-10

Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-1	113725		Solid	8/10/10 0:00	EPA 8082 PCB	s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	r: IIIn			c				Netes
Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-2			Solid	8/10/10 0:00	EPA 8082 PCB		r	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	п/а	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID	•	Matrix	Sampled	Method			Notes
135433-3			Solid	8/10/10 0:00	EPA 8082 PCB	5	-	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		1						
Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-4	113728		Solid	8/10/10 0:00	EPA 8082 PCB	5		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			ŧ	· · · · · · · · · · · · · · · · · · ·	1 .			
Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-5	113729	-1	Solid	8/10/10 0:00	EPA 8082 PCB		,	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	<u>n/a</u>	n/a	<u> </u>
Lab ID	Field ID		Matrix	Sampled	Method			Notes
<u> </u>			Solid	8/10/10 0:00	EPA 8082 PCB			Troca
	113730	Van dan					Chin	
Con ID n/a	Container n/a	Vendor n/a	QC Lot	Preserv n/a	QC Lot	Prep n/a	Ship n/a	
II/d	11/4	11/a	1/4	174	17a	17.4	11/4	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-7	113731		Solid	8/10/10 0:00	EPA 8082 PCB	5		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			,				<u> </u>	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-8	113732		Solid	8/10/10 0:00	EPA 8082 PCB	s		
Con ID_	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	_
	rt.LUD	-	14-4-7	S1-4	Mathad			Alesea
Lab ID	Field 1D		Matrix	Sampled	Method			Notes
135433-9		1 1/- 1	Solid	8/10/10 0:00	EPA 8082 PCB		Chi.	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a_	n/a	n/a	n/a	n/a	n/a	n/a	,
Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-10		· -	Soil	8/10/10 0:00	EPA 8082 PCB	s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
		1					1	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
	113735		Soil	8/10/10 0:00	EPA 8082 PCB	5		
135433-11	113733							
135433-11 Con ID	Container	Vendor	QC Lat	Preserv	QC Lot	Prep	Ship	



Sample Receipt Report (Continued)

Project: 17228

Delivery: Hand

Temperature: n/a

Chain of Custody: Present

Client: **Environmental Health & Engineering, Inc.** Lab ID: 135433

Airbill: n/a Lab Receipt: 08-11-10

Custody Seal(s): n/a

Lab ID	Field ID		Matrix	Sampled	Method				Notes
135433-12			Soil	8/10/10 0:00	0:00 EPA 8082 PCBs				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/2	n/a	0/2	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-13	113737		Soil	8/10/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
135433-14	113738		Soil	8/10/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	



Data Certification

Project: Client:

17228

Environmental Health & Engineering, Inc.

Lab ID:

135433

08-11-10 18:05 Received:

			DEP Analytical Protoc	ol Certification			·		
Proj	ect Location:	n/a				MA DEP RTN:	n/a		
	•	tifications for the follo	-	1					
			Soil/Sediment (X)	Drinking Wat	er ()	Air ()	Other	(X)	
	1	li that apply below):						<u>,</u>	
C/ 4/	8260 VOC	7470/7471 Hg	Mass DEP VPH	8081 Pestid	cides	7196 Hex Cr	Mass DEP AP	Ή	
	CAMIIA ()		CAMIVA ()	CAM V B	()	CAM VIB ()		()	
	8270 SVOC CAM II B ()	7010 Metals CAM III C ()	Mass DEP EPH CAM IV B ()	8151 Herb	icides ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B	()	
	6010 Metals	6020 Metals	8082 PCB	9012 Cyan			CANTIA	· ,	
	CAM III A ()	. ,	CAM V A (X)	CAM VI A	(_)	CAM VIII B ()	.		
	· · · · · · ·	e to questions A throug				•	· · ·		
Α.		received in a conditior d (including temperatu				,,,			
	within method ho		re) in the held of labor	atoratory, and	u prepare	ed/analyzed	Yes		
	Within fiction forms.								
В.	Were the analytica	elected CAM	Vas						
	protocol(s) follower		Yes						
C. Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?									
D.	D. Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?								
E.		'H methods only: Was idual method(s) for a li			ignificant	t modification(s)?	n/a		
F.		le CAM protocol QC a oratory narrative (inclu					Yes		
Res	onses to questions	G, H and I below are	required for "Presum	tive Certaint	y" status	.			
G.	Were the reporting protocol(s)?	g limits at or below all	CAM reporting limits	specified in tl	ne selecto	ed CAM	No		
		that achieve "Presump ntativeness requiren					•		
Н.	Were all QC perfo	ormance standards spec	cified in the CAM prot	ocol(s) achiev	/ed?		Yes		
l.	<u> </u>	rted for the complete a			CAM pro	tocol(s)?	Yes		
All	negative responses r	must be addressed in a	in attached laboratory	narrative.					
res	ponsible for obtain	test under the pains ning the information , accurate and comp	, the material contain		•	• • •			
Sign	nature:			Position:	Opera	ations Manager			
Ŭ	ted Name:	Eric H. Jensen		Date:		· ·			
		d Name: Eric H. Jensen Date: 08-18-10							



Field ID:113725Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 135433-1
 QC Batch ID:
 PB-3546-X

 Sampled:
 08-10-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

 Received:
 08-11-10 18:05
 Sample Weight:
 1.4 g

 Received:
 08-11-10
 18:05
 Sample Weight:
 1.4 g

 Extracted:
 08-12-10
 10:30
 Final Volume:
 1 mL

 Cleaned Up:
 08-13-10
 15:30
 Percent Solids:
 n/a

 Analyzed:
 08-14-10
 23:36
 Dilution Factor:
 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL	BRL				
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	850		
11097-69-1	Aroclor 1254	890	2C (780)*	ug/Kg	850		
11096-82-5	Aroclor 1260	BRL		ug/Kg	850		
37324-23-5	Aroclor 1262 [†]	BRL	BRL				
11100-14-4	Aroclor 1268 [↑]	BRL		ug/Kg	850		

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	140	53	37 %	30 - 150 %
Column	Decachlorobiphenyl	140	59	42 %	30 - 150 %
Second	Tetrachloro-m-xylene	140	55	39 %	30 - 150 %
Column	Decachlorobiphenyl	140	56	40 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be

reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

t Non-target analyte. Result is based on a single mid-range calibration standard.

* Confirmatory column quantification.

2C Concentration reported from second column.



Field ID:

113726

Matrix:

Solid

1 mL

n/a

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

135433-2

QC Batch ID:

PB-3546-X

Sampled:

Instrument ID:

GC-11 Agilent 6890

Received:

08-10-10 00:00 08-11-10 18:05 08-12-10 17:00

Sample Weight: Final Volume:

3.7 g

Extracted: Cleaned Up: Analyzed:

08-13-10 15:30 08-16-10 12:28

Percent Solids:

Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	320
11104-28-2	Aroclor 1221	BRL	ug/Kg	320
11141-16-5	Aroclor 1232	BRL	ug/Kg	320
53469-21-9	Aroclor 1242	BRL	ug/Kg	320
12672-29-6	Aroclor 1248	1,500 1C (1300)*	ug/Kg	320
11097-69-1	Aroclor 1254	BRL	ug/Kg	320
11096-82-5	Aroclor 1260	BRL	ug/Kg	320
37324-23-5	Aroclor 1262	BRL	ug/Kg	320
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	320

C Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	54	24	44 %	30 - 150 %
Column	Decachlorobiphenyl	54	52	97 %	30 - 150 %
Second	Tetrachloro-m-xylene	54	20	37 %	30 - 150 %
Column	Decachlorobiphenyl	54	35	65 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

1C Concentration reported from first column.



Field ID: Project:

113727

Matrix: Container: Solid Plastic Bag

Client:

17228

Preservation:

Cool

Environmental Health & Engineering, Inc.

Laboratory ID: Sampled:

135433-3

QC Batch ID: Instrument ID: PB-3546-X

Received:

08-10-10 00:00 08-11-10 18:05

Sample Weight:

GC-11 Agilent 6890 9.6 g

Extracted: Cleaned Up:

08-12-10 10:30 08-13-10 15:30

Final Volume: Percent Solids: 1 mL n/a

Analyzed:

08-14-10 20:51

Dilution Factor:

10

Analyst:

CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,300		
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,300		
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	ug/Kg	1,300			
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,300		
11097-69-1	Aroclor 1254	2,600	2C (2400)*	u g/Kg	1,300		
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,300		
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	1,300		
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,300		

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	21	11	54 %	30 - 150 %
Column	Decachlorobiphenyl	21	12	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	21	8	40 %	30 - 150 %
Column	Decachlorobiphenyl	21	12	60 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2**C** Concentration reported from second column.



Field ID:

113728

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Laboratory ID:

135433-4

Cool

Sampled:

QC Batch ID: Instrument ID: PB-3546-X

Received:

08-10-10 00:00

Sample Weight:

GC-11 Agilent 6890

Extracted:

08-11-10 18:05 08-12-10 10:30

Final Volume:

0.46 g 1 mL

Cleaned Up: Analyzed:

08-13-10 15:30 08-14-10 21:14 Percent Solids: Dilution Factor: n/a

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	26,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	26,000
11141-16-5	Aroclar 1232	BRL	ug/Kg	26,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	26,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	26,000
11097-69-1	Aroclor 1254	150,000 2C (120000) ³	ug/Kg	26,000
11096-82-5	Aroclar 1260	BRL	ug/Kg	26,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	26,000
11100-14-4	Aroclor 1268 [†]	BRI.	ug/Kg	26,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	430	270	62 %	30 - 150 %	
Column	Decachlorobiphenyl	430	260	61 %	30 - 150 %	
Second	Tetrachloro-m-xylene	430	260	61 %	30 - 150 %	
Column	Decachlorobiphenyl	430	260	60 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

Concentration reported from second column.



Field ID: Project: 113729 17228 Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID: Sampled:

135433-5 08-10-10 00:00 QC Batch ID: Instrument ID:

PB-3546-X GC-11 Agilent 6890

1 ml

n/a

1

Received: Extracted: 08-10-10 00:00 08-11-10 18:05 08-12-10 10:30

Sample Weight: Final Volume:

25 g

Extracted: Cleaned Up: Analyzed: 08-12-10 10:30 08-13-10 15:30 08-14-10 23:59

Percent Solids: Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	49
11104-28-2	Aroclor 1221	BRL	ug/Kg	49
11141-16-5	Aroclor 1232	BRL	ug/Kg	49
53469-21-9	Aroclor 1242	BRL	ug/Kg	49
12672-29-6	Aroclor 1248	530 2C (460)*	ug/Kg	49
11097-69-1	Aroclor 1254	BRL	ug/Kg	49
11096-82-5	Aroclor 1260	BRL	ug/Kg	49
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	49
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	49

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	8	6	73 %	30 - 150 %	
Column	Decachlorobiphenyl	8	10	126 %	30 - 150 %	
Second	Tetrachloro-m -xylene	8	7	88 %	30 - 150 %	
Column	Decachlorobiphenyl	8	9	114 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

the findicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



CRL

EPA Method 8082 Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:113730Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 135433-6
 QC Batch ID:
 PB-3546-X

 Sampled:
 08-10-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 08-11-10 18:05 Sample Weight: 24 g Extracted: 08-12-10 10:30 Final Volume: 1 mL 08-13-10 15:30 Cleaned Up: Percent Solids: n/a 08-15-10 00:22 Analyzed: Dilution Factor: 1

Reporting Limit **CAS Number** Analyte Concentration Units Notes 12674-11-2 Aroclor 1016 BRI ug/Kg 50 11104-28-2 Aroclor 1221 BRL ug/Kg 50 11141-16-5 Aroclor 1232 BRL 50 ug/Kg 53469-21-9 Aroclor 1242 BRL ug/Kg 50 12672-29-6 Aroclor 1248 (80)* 50 ug/Kg 11097-69-1 Aroclor 1254 BRL ug/Kg 50 11096-82-5 Aroclor 1260 BRL 50 ug/Kg Aroclor 1262 37324-23-5 BRL ug/Kg 50 11100-14-4 Aroclor 1268 BRL 50 ug/Kg

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	8	6	67 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	100 %	30 - 150 %
Second	Tetrachloro-m-xylene	8	7	80 %	30 - 150 %
Column	Decachlorobiphenyl	8	8	91 %	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations: BR

Analyst:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: Project:

113731 17228

Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

135433-7

QC Batch ID: Instrument ID: PB-3546-X

Sampled: Received: 08-10-10 00:00 08-11-10 18:05

Sample Weight: Final Volume:

GC-11 Agilent 6890 23 g

Extracted: Cleaned Up: 08-12-10 10:30 08-13-10 15:30 Percent Solids: Dilution Factor:

1 mL n/a 10

Analyzed:

08-14-10 21:38

CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	510
11104-28-2	Aroclor 1221	BRL	ug/Kg	510
11141-16-5	Aroclor 1232	BRL	ug/Kg	510
53469-21-9	Aroclor 1242	BRL	ug/Kg	510
12672-29-6	Aroclor 1248	4,000 p 2C (2000)*	ug/Kg	510
11097-69-1	Aroclor 1254	BRL	ug/Kg	510
11096-82-5	Aroclor 1260	BRL	ug/Kg	510
37324-23-5	Aroclor 1262	BRL	ug/Kg	510
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	510

QC Surrogate Compound		Surrogate Compound Spiked Measured Recovery		Recovery	QC Limits	
First	Tetrachloro-m-xylene	9	5	56 %	30 - 150 %	
Column	Decachlorobiphenyl	9	11	127 %	30 - 150 %	
Second	Tetrachloro-m-xylene	9	7	81 %	30 - 150 %	
Column	Decachlorobiphenyl	9	10	120 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Greater than 40% difference between the detected concentrations on the two GC columns.



Project: 17228 Client:

Matrix: Container:

Solid **Plastic Bag**

Environmental Health & Engineering, Inc.

Preservation:

Cool

n/a

1

Laboratory ID: Sampled:

135433-8 08-10-10 00:00

QC Batch ID: Instrument ID: PB-3546-X GC-11 Agilent 6890

08-11-10 18:05 Received: Extracted: 08-12-10 10:30 Cleaned Up: 08-13-10 15:30

Sample Weight: Final Volume:

13 g 1 mL

Analyzed: Analyst:

Field ID:

08-15-10 00:46 CRL

113732

Percent Solids: Dilution Factor:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	93
11104-28-2	Aroclor 1221	BRL	ug/Kg	93
11141-16-5	Aroclor 1232	BRL	ug/Kg	93
53469-21-9	Aroclor 1242	BRL	ug/Kg	93
12672-29-6	Aroclor 1248	130 2C (110)*	ug/Kg	93
11097-69-1	Aroclor 1254	BRL	ug/Kg	93
11096-82-5	Aroclor 1260	BRL	ug/Kg	93
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	93
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	93

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	15	10	61 %	30 - 150 %
Column	Decachlorobiphenyl	15	16	102 %	30 - 150 %
Second	Tetrachloro-m-xylene	15	11	73 %	30 - 150 %
Column	Decachlorobiphenyl	15	15	94 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: Project:

113733 17228

Matrix: Container:

Solid **Plastic Bag**

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

135433-9

QC Batch ID:

PB-3546-X

Sampled:

08-10-10 00:00

Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 08-11-10 18:05 08-12-10 10:30

Sample Weight: Final Volume:

19 g 1 mL n/a

Cleaned Up: Analyzed:

08-13-10 15:30 08-15-10 01:09

Percent Solids:

Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	65
11104-28-2	Aroclor 1221	BRL		ug/Kg	65
11141-16-5	Aroclor 1232	BRL		ug/Kg	65
53469-21-9	Aroclor 1242	BRL		ug/Kg	65
12672-29-6	Aroclor 1248	200	2C (170)*	ug/Kg	65
11097-69-1	Aroclor 1254	BRL	_	ug/Kg	65
11096-82-5	Aroclor 1260	BRL		ug/Kg	65
37324-23-5	Aroclor 1262 [†]	BRL	-	ug/Kg	65
11100-14-4	Aroclor 1268 T	BRL	ug/Kg	65	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	11	6	56 %	30 - 150 %
Column	Decachlorobiphenyl	11	10	92 %	30 - 150 %
Second	Tetrachloro-m -xylene	11	7	66 %	30 - 150 %
Column	Decachlorobiphenyl	11	10	90 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2**C** Concentration reported from second column.



Field ID: 113734 Project: 17228

Matrix: Container: Soil

Client:

Environmental Health & Engineering, Inc.

Preservation:

Plastic Bag Cool

Laboratory ID:

135433-10

QC Batch ID: Instrument ID:

PB-3547-X

Sampled: Received: 08-10-10 00:00 08-11-10 18:05

Sample Weight: Final Volume:

GC-11 Agilent 6890 30 g

Extracted: Cleaned Up: Analyzed: 08-14-10 01:25

08-12-10 17:00 08-13-10 15:30

Percent Solids: Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	4,100
11104-28-2	Aroclor 1221	BRL		ug/Kg	4,100
11141-16-5	Aroclor 1232	BRL		ug/Kg	4,100
53469-21-9	Aroclor 1242	BRL		ug/Kg	4,100
12672-29-6	Aroclor 1248	BRL		ug/Kg	4,100
11097-69-1	Aroclor 1254	7,400	2C (6300)*	ug/Kg	4,100
11096-82-5	Aroclor 1260	BRL		ug/Kg	4,100
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	4,100
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	4,100

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	7	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	7	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	7	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2**C** Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



113735 Field ID: 17228 Project:

Matrix: Container: Soil **Plastic Bag**

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool PB-3547-X

Laboratory ID: Sampled:

135433-11 08-10-10 00:00 08-11-10 1B:05 QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 08-12-10 17:00 Cleaned Up: 08-13-10 15:30 Sample Weight: Final Volume: Percent Solids:

30 g 1 mL 99 Dilution Factor:

Analyzed:

08-16-10 12:52

CRL Analyst:

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL.	BRL.		
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	120	1C (100)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	5	69 %	30 - 150 %
Column	Decachlorobiphenyl	7	7	99 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	5	75 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	64 %	30 - 15 0 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column.



Field ID:

113736

Matrix:

Soil

Project: Client:

17228

Container:

Plastic Bag

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

135433-12

QC Batch ID:

PB-3547-X

Sampled:

08-10-10 00:00

Instrument ID:

GC-11 Agilent 6890

Received:

08-11-10 18:05 08-12-10 10:30 Sample Weight: Final Volume:

31 g

Extracted: Cleaned Up: Analyzed:

08-13-10 15:30 08-15-10 01:33

Percent Solids: Dilution Factor: 1 mL 99

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	140 1C (130)	* ug/Kg	40
11097-69-1	Aroclor 1254	BRL.	ug/Kg	40
11096-82-5	Aroclor 1260	BRL.	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Araclar 1268 †	RPI	ua/Ka	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	3	41 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	68 %	30 - 150 %
Second	Tetrachloro-m-xylene	7	3	46 %	30 - 150 %
Column	Decachlorobiphenyl	7	4	61 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard. t
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID:

113737

Matrix:

Soil

Project:

17228

Container:

Plastic Bag Cool

1 ml

Client:

Environmental Health & Engineering, Inc.

Preservation:

PB-3547-X

Laboratory ID: Sampled:

135433-13 08-10-10 00:00 OC Batch ID: Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 08-11-10 18:05 08-12-10 10:30

Sample Weight: Final Volume:

31 g

Cleaned Up: Analyzed:

08-13-10 15:30 08-15-10 02:20 Percent Solids:

100 Dilution Factor: 1

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	130 2C (110)* ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	7	5	70 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	80 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	7 1 %	30 - 150 %
Column	Decachlorobiphenyl	7	5	83 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from second column.



Field ID: 113738 17228 Project:

Matrix:

Soil

Client:

Container:

Plastic Bag

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

135433-14

QC Batch ID: Instrument ID: PB-3547-X

Sampled: Received: 08-10-10 00:00 08-11-10 18:05

Sample Weight:

GC-11 Agilent 6890 30 g

Extracted: Cleaned Up: Analyzed:

08-12-10 10:30 08-13-10 15:30

Final Volume: Percent Solids: 1 mL 100

08-15-10 02:44

Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	BRL	ug/Kg	40
11097-69-1	Aroclor 1254	130 2C (120)*	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	40
11100-14-4	Aroclor 1268	BRL	ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	7	4	67 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	87 %	30 - 150 %
Second	Tetrachloro-m -xylene	7	5	69 %	30 - 150 %
Column	Decachlorobiphenyl	7	6	88 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on a dry weight basis.

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Project Narrative

Project: Client: 17228

Environmental Health & Engineering, Inc.

Lab ID:

135433

Received:

08-11-10 18:05

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. Project 135433 was processed for 5 business day turnaround time, with a due date of 8-18-10, per Todd Megrath, 8-12-10.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 8082 Non-conformance: Sample 135433-10. Sample did not have measureable surrogate recoveries due to required sample dilution.
- 2. EPA 8082 Note: Samples 135433-3, -4, -7 and -10. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration. Elevated reporting limits are above the recommended CAM reporting limits for the target analytes.
- 3. Samples 135433-1 through -14 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
- 4. EPA 8082 Nore: Sample 135433-1. Sample had elevated reporting limits above the recommended CAM reporting limits for the target analytes due to limited sample material.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 11 ANG 10

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue

Needham, MA 02494-2725 GIRROUND WATER TO: Please send invoices to ATTN: Accounts Payable Please send reports to ATTN: Data Coordinator For EHI& E Data Coordinator - URGENT DATA SAMPLE ID **SAMPLE TYPE ANALYTICAL METHOD/NUMBER** OTHER:Time/gater/ol. 113725 EPA BOBZ FOR PCBS BULK 113726 115727 113728 113729 113730 113731 113732 113733 113734 501L EPA 8082 SOXHLET EXTRACTION 113735 113736 113737 113738 Special instructions: Standard turn around time Other -☐ Rush by date/time ☐ Fax results 781-247-4305 ☐ Electronic transfer - datacoordinator@eheinc.com ☐ RETURN SAMPLES Exadditional report recipient the entry con intragala e chain com n ghe copy of this form to the above address Each signal of please of Environmental Health & Engineering, Inc. Relinquished by:

of (company name) ______ Received by of (company name) __ Relinquished by: of (company name)__ Received by: _ of (company name) Date: Relinquished by: __ Received by: _ ____of (company name) ___ Date:_ Lab Data of Environmental Health & Engineering, Inc. Received by: _ Date: _

Page Page 20 of 28



Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications* for *Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

Units:

EPA 8082

QC Batch ID: Matrix:

PB-3546-X Soil

ug/Kg

Instrument ID: Extracted: Cleaned Up:

GC-11 Agilent 6890 Instrument ID: 08-12-10 17:00

Extracted: Cleaned Up: GC-11 Agilent 6890 08-12-10 17:00 08-13-10 15:30

Analyzed:

08-13-10 15:30 08-13-10 19:09

Analyzed:

08-13-10 19:32

Analyst:

CRL

Analyst:

CRL

	LCS							LCS Duplicate							
CAS Number	Analyte	Spiked	Meas	sured	Reco	very	Spiked		sured	Reco	overy	RI	. סי	QC Lir	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Cal	fst Col	2nd Cal	ist Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	73	73	44%	44%	170	76	78	46%	47%	4 %	6 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	140	140	82%	B4%	170	130	140	80%	82%	2 %	2 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	overy				QC Limits
Tetrachloro-m-xylene	6.7	4.2	4.2	64%	63%	6.7	3.8	3.9	58%	58%	30 - 150 %
Decachlorobiphenyl	6.7	6.6	6.6	100%	100%	6.7	6.3	6.4	95%	96%	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category:

EPA Method 8082

QC Batch ID: Matrix: PB-3546-X

Soil

Instrument ID:

GC-11 Agilent 6890

Extracted:

08-12-10 17:00

Cleaned Up: Analyzed: 08-13-10 15:30 08-13-10 18:45

Analyst:

CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	40

QC Surrogat	e Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.2	63 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.5	98 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	4.0	61 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.6	99 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

t Non-target analyte. Result is based on a single mid-range calibration standard.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA 8082

Instrument ID: Extracted:

GC-11 Agilent 6890 Instrument ID: GC-11 Agilent 6890

QC Batch ID: Matrix:

PB-3547-X Soil

Cleaned Up:

08-12-10 17:00 08-13-10 15:30

Extracted: Cleaned Up: 08-12-10 17:00 08-13-10 15:30 08-13-10 18:22

Units:

ug/Kg

08-13-10 17:58 Analyzed: Analyst: CRL

Analyzed: Analyst:

CRL

	LCS						LCS Duplicate								
CAS Number	Analyte	Spiked	Mea	sured	Reco	wery	Spiked	Mea	sured	Reco	overy	R	PD	QC.Lin	nits
	-		1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col-	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	140	140	85%	84%	170	150	140	86%	87%	3 %	4 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	150	150	88%	89%	170	150	150	91%	91%	3 %	2 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	overy				 QC Limits
Tetrachloro-m-xylene	6.7	4.7	4.4	70%	65%	6.7	4.8	4.6	72%	69%	30 - 150 %
Decachlorobiphenyl	6.7	6.6	6.9	100%	104%	6.7	7.0	6.9	105%	104%	 30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category: EPA Method 8082

QC Batch ID: PB-3547-X Soil

Instrument ID: Extracted: GC-11 Agilent 6890 08-12-10 17:00

Cleaned Up: Analyzed: 08-13-10 15:30 08-13-10 17:34

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.8	72 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.5	98 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	4.5	67 %	30 - 150 %
Column	Decachlorobioheny	6.7	6.5	98 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

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Department of Health Services, PH-0586

Potable Water, Wastewater, Solid Waste and Soil

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/Out_State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

http://public.dep.state.ma.us/labcert/labcert.aspx

Potable Water and Non-Potable Water

Department of Labor,

Division of Occupational Safety, AA000195 http://www.mass.gov/dos/forms/la-rpt list aa.pdf

Asbestos Analytical Services, Class A

NEW HAMPSHIRE

Department of Environmental Services, 202708 http://www4.egov.nh.gov/DES/NHELAP

Potable Water, Non-Potable Water, Solid and Chemical Materials

NEW YORK

Department of Health, 11754

http://www.wadsworth.org/labcert/elap/comm.html

Potable Water, Non-Potable Water, Solid and Hazardous Waste

RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

http://www.health.ri.gov/labs/outofstatelabs.pdf

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

VERMONT

Department of Health, VT-87643

http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

Potable Water



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)		Non-Potable Water (Wastewater)	
Analyte	Method	Analyte	Method
1,2-Dibromo-3-Chforopropane	EPA 504.1	Antimony	EPA 200.7
1,2-Dibromoethane	EPA 504.1	Antimony	EPA 200.8
Alkalinity, Total	SM 2320-B	Arsenic	EPA 200.7
Antimony	EPA 200.8	Arsenic	EPA 200.8
Arsenic	EPA 200.8	Beryllium	EPA 200.7
Barium	EPA 200.7	Beryllium	EPA 200.8
Barium	EPA 200.8	Beta-BHC	EPA 608
Beryllium	EPA 200.7	Biochemical Oxygen Demand	SM 5210-B
Beryllium	EPA 200.8	Cadmium	EPA 200.7
Cadmium	EPA 200.7	Cadmium	EPA 200.8
Cadmium	EPA 200.8	Calcium	EPA 200.7
Calcium	EPA 200.7	Chemical Oxygen Demand	SM 5220-D
Chlorine, Residual Free	SM 4500-CL-G	Chlordane	EPA 608
Chromium	EPA 200.7	Chloride	EPA 300.0
Cyanide, Total	Lachat 10-204-00-1-A	Chlorine, Total Residual	SM 4500-CL-G
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223	Chromium	EPA 200.7
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G	Chromium	EPA 200.8
Fecal Coliform (Source Water)	MF SM 9222-D	Cobalt	EPA 200.7
Fluoride	EPA 300.0	Cobalt	EPA 200.8
Fluoride	SM 4500-F-C	Copper	EPA 200.7
Heterotrophic Plate Count	SM 9215-B	Copper	EPA 200.8
Lead	EPA 200.8	Cyanide, Total	Lachat 10-204-00-1-A
Mercury	EPA 245.1	DDD	EPA 608
Nickel	EPA 200.7	DDE	FPA 608
Nickel	EPA 200.7 EPA 200.8	DDT	EPA 608
	EPA 300.0	Delta-BHC	EPA 608
Nitrate-N		Delta-BHC Dieldrin	EPA 608
Nitrate-N	Lachat 10-107-04-1-C EPA 300.0		EPA 608
Nitrite-N		Endosulfan I	
Nitrite-N	Lachat 10-107-04-1-C	Endosulfan II	EPA 608
pH Satantona	SM 4500-H-B	Endosulfan Sulfate Endrin	EPA 608 EPA 608
Selenium	EPA 200.8		
Silver	EPA 200.7	Endrin Aldehyde	EPA 608
Silver	EPA 200.8	Fluoride	EPA 300.0
Sodium	EPA 200.7	Gamma-BHC	EPA 608
Sulfate	EPA 300.0	Hardness (CaCO3), Total	EPA 200.7
Thallium	EPA 200.8	Hardness (CaCO3), Total	SM 2340-B
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223	Heptachlor	EPA 608
Total Coliform (Treatment and Distribution)	MF SM 9222-B	Heptachlor Epoxide	EPA 608
Total Dissolved Solids	SM 2540-C	Iron	EPA 200.7
Trihalomethanes	EPA 524.2	Kjeldahl-N	Lachat 10-107-06-02-D
Turbidity	SM 2130-B	Lead	EPA 200.7
Volatile Organic Compounds	EPA 524.2	Magnesium	EPA 200.7
		Manganese	EPA 200.7
Non-Potable Water (Wastewater)		Manganese	EPA 200.8
Analyte	Method	Mercury	EPA 245.1
		Molybdenum	EPA 200.7
Aldrin	EPA 608	Molybdenum	EPA 200.8
Alkalinity, Total	SM 2320-B	Nickel	EPA 200.7
Alpha-BHC	EPA 608	Nickel	EPA 200.8
Aluminum	EPA 200.7	Nitrate-N	EPA 300.0
Aluminum	EPA 200.8	Nitrate-N	Lachat 10-107-04-1-C
Ammonia-N	Lachat 10-107-06-1-B	Non-Filterable Residue	SM 2540-D
		Oil and Grease	EPA 1664



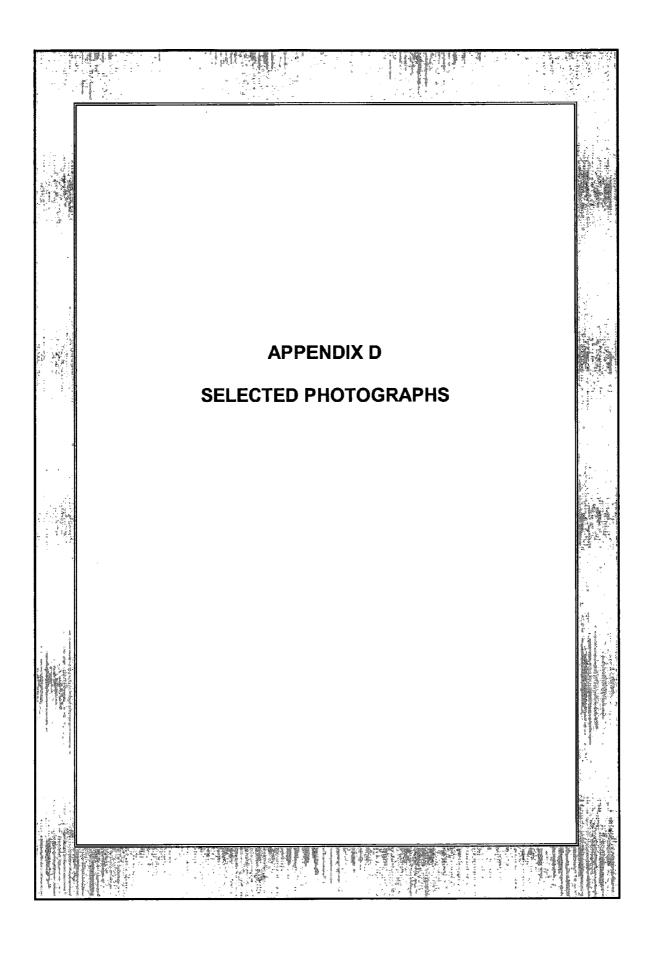
Certifications and Approvals

MASSACHUSETTS

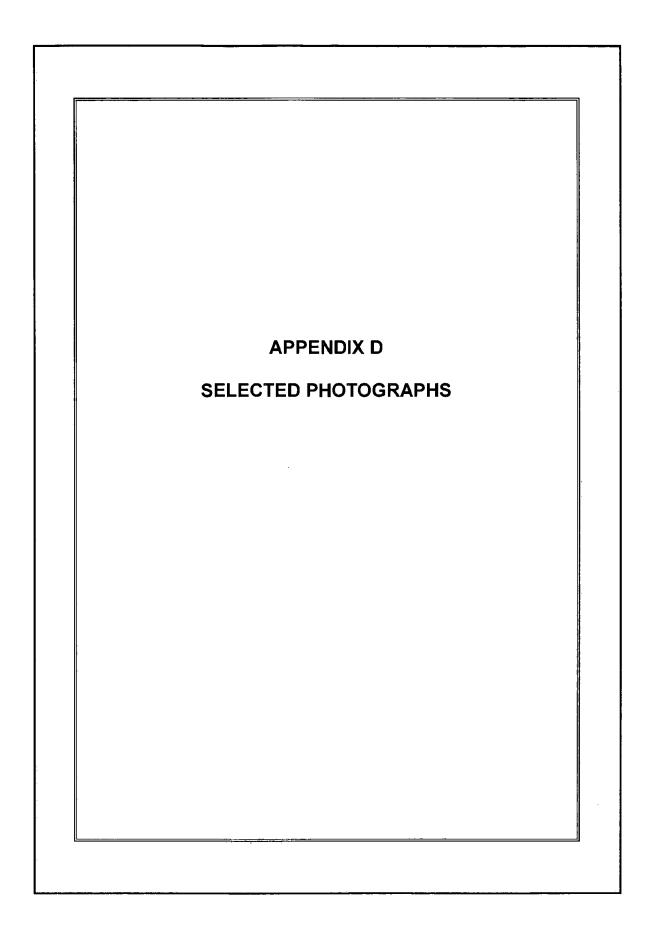
Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastewater)	
Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
pH	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-E
Phosphorus, Total	Lachat 10-115-01-1-0
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200,7
Zinc	EPA 200.8



D



SELECTED PHOTOGRAPHS



Photograph D.1 Typical Caulking Detail



Photograph D.2 Typical Façade Section



117 Fourth Avenue Needham, MA 02494-2725 TEL 800-825-5343 FAX 781-247-4305 www.eheinc.com

August 16, 2010

Ms. Kimberly Tisa PCB Coordinator U. S. Environmental Protection Agency Five Post Office Square, Suite 100 Boston, MA 02109-3912

RE: Estabrook Elementary School, Lexington, Massachusetts (EH&E 17228)

Dear Ms. Tisa:

This letter is intended to provide the U.S. Environmental Protection Agency (EPA) information regarding polychlorinated biphenyl (PCB)-contaminated materials that exceed the allowable levels under the federal PCB regulations. Said materials were identified at Estabrook Elementary School located at 117 Grove Street in Lexington, Massachusetts (the School). EH&E is working in conjunction with the Town of Lexington Director of the Board of Health and the Director of Public Facilities. As part of this active investigation, exterior caulking materials have been characterized and air samples have been collected in multiple classrooms in the school.

On behalf of the Town of Lexington we are requesting expedited approval for source removal of 550 linear feet of PCB caulk around windows. This request for a risk based disposal approval is being made under Title 40 Code of Federal Regulations Section 761.61(c) (40 CFR 761 .61(c)) as an interim effort to decrease airborne PCB concentrations in the School prior to reoccupancy in early September, 2010. In order to meet this goal, removal of caulking materials will need to begin on August 19, 2010. It is important to note that the Director of Public Facilities has indicated that the Town of Lexington plans to decommission and replace the Estabrook Elementary School within the next several years, currently estimated for 2014.

NATURE OF PCB CONTAMINATED MATERIAL

Environmental Health & Engineering, Inc. (EH&E) performed a thorough investigation to identify suspect PCB-containing caulking and sealants used throughout portions of the School. EH&E

collected samples in a manner to investigate the installation and application of caulking materials, including an evaluation of any evidence indicating window caulking replacement or repair work. Attachment A provides the locations where the samples were collected. Five unique types of caulking were identified and sampled. One of the five types of caulking contained PCB concentrations between 6,000 and 21,000 parts per million (ppm). Table 1 provides the bulk caulking sample results; the laboratory report is located in Attachment B. Photograph 1 depicts this caulking material and the typical installation detail between the metal window frame and brick façade. Photograph 2 depicts a typical section of the school façade.

Table 1 Bulk Caulking Sample Results for Polychlorinated Biphenyls from Estabrook School, Lexington, Massachusetts, June 16 and 17, 2010

Sample ID	Location (Description)	Aroclor 1248 ^{1,2} (ppm _w)	Notes
112207	Map location 1 (Grey)	7.2	1C(6.6)
112208	Map location 2 (Grey)	9.5	1C(9.3)
112209	Map location 3 (White)	15,000	1C(12,000)
112210	Map location 4 (White)	21,000	1C(17,000)
112211	Map location 5 (White)	16,000	1C(14,000)
112212	Duplicate 112211 (White)	17,000	1C(14,000)
112213	Map location 6 (White)	9,900	1C(8,100)
112214	Map location 7 (Black)	4.4	1C(2.9)
112215	Map location 8 (Clear)	7.4	2C(6.1)
112216	Map location 9 (Grey)	0.36 0.62*	1C(0.29) 1C(0.55)*
112217	Map location 10 (Brown)	0.88	1C(0.61)
112218	Map location 11 (White)	190*	2C(170)*
112219	Map location 12 (White)	4,000* 2,000†	2C(3,600) 2C(1,200)†
112220	Map location 13 (Grey)	6.8*	2C(5.6)*
112221	Map location 14 (Grey)	2.9*	1C(2.6)*
112222	Map location 15 (Grey)	1.6	1C(1.5)

ppm_w parts per million by weight



Polychlorinated biphenyl concentration analysis performed by Groundwater Analytical, Inc., using U.S. Environmental Protection Agency (EPA) Method 8082 (GC/ECD).

Aroclor 1016, 1221, 1232, 1242, 1254, and 1260 also tested. All results below reporting levels, unless noted.

Aroclor 1254 tested

Aroclor 1260 tested

¹C: Confirmation concentration reported from first column quantification.

²C: Confirmation concentration reported from second column quantification.



Photograph 1 Typical Caulking Detail



Photograph 2 Typical Façade Section



PROPOSED INTERIM CLEAN UP PLAN

The Town of Lexington is proposing the following interim cleanup standards and activities as part of this source removal project:

- Remove 550 linear feet of PCB containing caulking that is greater than or equal to 50 ppm of PCBs.
- Decontaminate the non-porous metal window frame surface to less than or equal to 10 micrograms per 100 square centimeters (10 μg/100 cm²).
- Encapsulate the porous brick material with a two-part epoxy encapsulant.
- Dispose of all waste in a Toxic Substances Control Act (TSCA)-approved disposal facility.

Contractors must obtain proper permits and conduct work in compliance with all applicable laws and regulations, including TSCA, the Resource Conservation and Recovery Act, and any other applicable federal, state, and local laws.

Abatement procedures for the work shall consist of the removal of specified PCB-containing materials. Non-porous marble building surfaces will need to be cleaned of specified PCB residues in accordance with the following procedures.

Window Frames

The cleaning process of the window frames shall adhere to the following procedures or equivalent:

- Cut caulking materials away from surfaces using hand tools.
- A wiper (or equivalent) moistened with an organic solvent (e.g., mineral spirits) shall be used
 to clean the non-porous surfaces of the identified materials, focusing the cleaning on areas
 where PCB-contaminated caulking, or PCB product contacted the surface. The surface shall
 be cleaned to the point of no visible contamination.
- Clean up dust and residues with high efficiency particulate air (HEPA) vacuuming and/or wet wiping techniques.



- Ensure that items designated as PCB remediation or bulk product waste are transported to the appropriate disposal dumpster via sealed bags or containers.
- No chutes or other transport methods that may generate fugitive emissions may be used to convey PCB remediation or bulk product waste from the work area.

At these locations, the surface of the metal window frame must achieve the post-abatement criterion of 10 μ g/100 cm² or less.

Brick Materials

The cleaning process of the identified brick materials shall adhere to the following procedures or equivalent:

- Cut and hand scraping to remove all visible caulking residue from identified surfaces.
- A wiper (or equivalent) moistened with an organic solvent (e.g., mineral spirits) shall be used
 to clean the surfaces of the identified materials, focusing the cleaning on areas where PCB
 contaminated caulking, or PCB product contacted the surface. The surface shall be cleaned
 to the point of no visible contamination.
- The wipers and any solvent wash shall be collected for disposal as PCB remediation waste.
- All solvents must be stored and used in conformance with U.S. Occupational Safety and Health Administration, EPA, and local fire department requirements and guidelines to minimize the hazard associated with the solvent.
- The contractor must specify work practices, procedures, and engineering controls that will
 be used to minimize entrainment of solvent vapors into the building and to protect workers
 from elevated exposures to vapors.
- Epoxy coating will be applied to the brick surfaces in contact with the PCB contaminated caulking.



Upon completion of the cleaning, EH&E will conduct visual inspections and confirmatory wipe sampling on top of the cured epoxy to verify the completeness of the cleaning and encapsulation effort.

AIR SAMPLING DATA

Table 2 provides a summary of the air sampling data collected at the School. The laboratory report is provided as Attachment C. Air sampling locations are provided in Attachment A. Results of the air samples collected in the school indicate airborne concentrations that exceed the screening level indoor air values provided by the EPA. These samples were collected under "worst case" conditions with the windows closed, and the central air handling and exhaust systems in the school not running. The unit ventilators were operated in the rooms where sampling was conducted. Room 6 was the only room with no unit ventilator; this room had the highest measured airborne concentration of PCBs. An additional round of air samples was collected on August 13, 2010, with the central air systems running under typical occupancy conditions. This air sampling data will be available on August 20, 2010.



Table 2 Summary of Air Sampling Results for Polychlorinated Biphenyls from the Estabrook School, Lexington, Massachusetts, July 22, 2010

105530 Fir	rst floor, room 6	Monochlorobiphenyls Dichlorobiphenyls Trichlorobiphenyls Tetrachlorobiphenyls Pentachlorobiphenyls Hexachlorobiphenyls Heptachlorobiphenyls Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	<5 37.7 298 282 183 426 466 105 4.9 <5
	rst floor, room 39C	Trichlorobiphenyls Tetrachlorobiphenyls Pentachlorobiphenyls Hexachlorobiphenyls Heptachlorobiphenyls Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	298 282 183 426 466 105 4.9 <5
	rst floor, room 39C	Tetrachlorobiphenyls Pentachlorobiphenyls Hexachlorobiphenyls Heptachlorobiphenyls Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	282 183 426 466 105 4.9 <5
	rst floor, room 39C	Pentachlorobiphenyls Hexachlorobiphenyls Heptachlorobiphenyls Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	183 426 466 105 4.9 <5 1800
	rst floor, room 39C	Hexachlorobiphenyls Heptachlorobiphenyls Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	426 466 105 4.9 <5 1800
	rst floor, room 39C	Heptachlorobiphenyls Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	466 105 4.9 <5 1800
	rst floor, room 39C	Octachlorobiphenyls Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	105 4.9 <5 1800
	rst floor, room 39C	Nonachlorobiphenyls Decachlorobiphenyl Total Homologs Monochlorobiphenyls	4.9 <5 1800
	rst floor, room 39C	Decachlorobiphenyl Total Homologs Monochlorobiphenyls	<5 1800
	rst floor, room 39C	Total Homologs Monochlorobiphenyls	1800
	rst floor, room 39C	Monochlorobiphenyls	,
	rst floor, room 39C		.
105531 Du		Diablarahishanda	<5
105531 Du		Dichlorobiphenyis	7.7
105531 Du		Trichlorobiphenyls	115
105531 Du		Tetrachlorobiphenyls	89.4
105531 Du		Pentachlorobiphenyls	41.2
105531 Du		Hexachlorobiphenyls	60.3
105531 Du		Heptachlorobiphenyls	27.8
105531 Du		Octachlorobiphenyls	<5
105531 Du		Nonachlorobiphenyls	<5
105531 Du		Decachlorobiphenyl	<5
105531 Du		Total Homologs	342
	uplicate 105530	Monochlorobiphenyls	<5
		Dichlorobiphenyls	6.9
		Trichlorobiphenyls	107
		Tetrachlorobiphenyls	81.7
		Pentachlorobiphenyls	36.3
}		Hexachlorobiphenyls	41.3
		Heptachlorobiphenyls	11.0
		Octachlorobiphenyls	<5 <5
		Nonachlorobiphenyls	 <5
		Decachlorobiphenyl	<u> </u>
105532 Fir	rot floor room 21A	Total Homologs Monochlorobiphenyls	284 <5
105552 Fil	st floor, room 31A		36.3
		Dichlorobiphenyls Triphlorobiphenyls	
		Trichlorobiphenyls Totrochlorobiphenyls	185 124
		Tetrachlorobiphenyls Pentachlorobiphenyls	75.0
1		Hexachlorobiphenyls	102
1			
1		Heptachlorobiphenyls	39.3
		Octachlorobiphenyls	<u><5</u> <5
		Nonachlorobiphenyls Deachlorobiphenyl	<u> </u>
ĺ		Decachlorobiphenyl Total Homologs	562



Table 2	Continued		
Sample ID	Location	Parameter ¹	Results (ng/m³)
105533	First floor, room 13	Monochlorobiphenyls	<5
		Dichlorobiphenyls	9.9
		Trichlorobiphenyls	128
		Tetrachlorobiphenyls	94.4
		Pentachlorobiphenyls	39.0
		Hexachlorobiphenyls	37.7
		Heptachlorobiphenyls	9.8
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	319
105534	First floor, room 24	Monochlorobiphenyls	<5
	·	Dichlorobiphenyls	59.4
		Trichlorobiphenyls	332
		Tetrachlorobiphenyls	119
		Pentachlorobiphenyls	62.6
		Hexachlorobiphenyls	77.8
		Heptachlorobiphenyls	29.9
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	680
105535	First floor, room 5	Monochlorobiphenyls	<5
		Dichlorobiphenyls	15.6
		Trichlorobiphenyls	119
		Tetrachlorobiphenyls	98.7
		Pentachlorobiphenyls	67.2
	•	Hexachlorobiphenyls	109
		Heptachlorobiphenyls	48.5
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	459
105536	Outdoors	Monochlorobiphenyls	<5
		Dichlorobiphenyls	<5
		Trichlorobiphenyls	<5
		Tetrachlorobiphenyls	<5
		Pentachlorobiphenyls	<5
		Hexachlorobiphenyls	<5
		Heptachlorobiphenyls	<5
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	<5



Table 2	Continued		
Sample ID	Location	Parameter ¹	Results (ng/m³)
95349	Field blank	Monochlorobiphenyls	<5
		Dichlorobiphenyls	<5
		Trichlorobiphenyls	<5
		Tetrachlorobiphenyls	<5
		Pentachlorobiphenyls	<5
		Hexachlorobiphenyls	<5
		Heptachlorobiphenyls	<5
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	<5
95350	First floor, room 1A	Monochlorobiphenyls	<5
		Dichlorobiphenyls	7.5
		Trichlorobiphenyls	62.5
		Tetrachlorobiphenyls	55.3
		Pentachlorobiphenyls	67.0
		Hexachlorobiphenyls	83.3
		Heptachlorobiphenyls	23.6
		Octachlorobiphenyls	<5
		Nonachlorobiphenyls	<5
		Decachlorobiphenyl	<5
		Total Homologs	299

ng/m³ nanograms per cubic meter

ONGOING WORK

Field investigation activities are ongoing at the School and include the collection and analysis of soil and window glazing materials. Also and as noted above, a second round of air samples has been collected under normal operating conditions with the ventilation systems configured as if the school was occupied. Additional data will be provided to the EPA as it becomes available. Engineers from EH&E are also working with facilities staff to improve ventilation conditions at the School. If procedures and cleanup standards result in conditions commensurate with EPA guidance (risk-based demonstration) an application as part of 40 CFR 761 .61(c) will be submitted to the EPA.



PCB concentration analysis performed by Alpha Woods Hole Labs., using U.S. Environmental Protection Agency (EPA) Method 10A (GC/MS-SIM).

^{*} The analyte was analyzed for but not detected at the sample specific level reported.

If you have any questions please feel free to contact either of us at 1-800-TALK EHE (1-800-825-5343).

Sincerely,

Matt A. Frágala, M.S., C.I.H.

Senior Scientist

Joseph G. Allen, D.Sc., M.P.H.

Senior Scientist

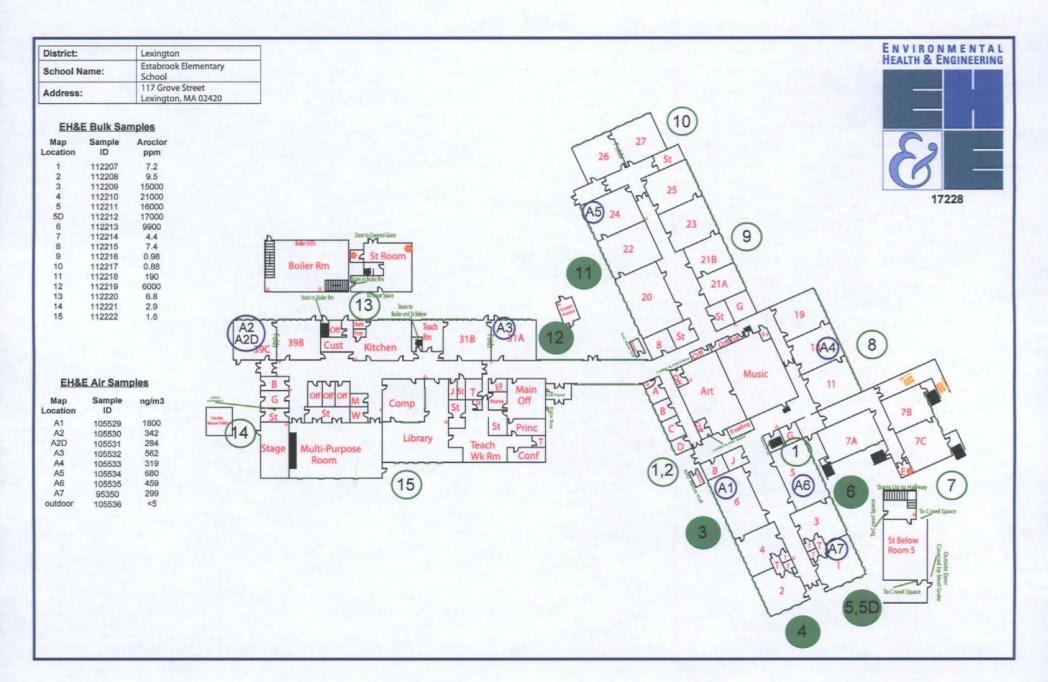
Attachment A: Sample Location Figure

Attachment B: Bulk Sample Laboratory Report Attachment C: Air Sample Laboratory Report

cc: Patrick Goddard, Town of Lexington

Gerard Cody, Town of Lexington

ATTACHMENT A SAMPLE LOCATION FIGURE



ATTACHMENT B BULK SAMPLE LABORATORY REPORT



Groundwater Analytical, Inc. P.O. Box 1200 228 Main Street Buzzards Bay, MA 02532

Telephone (508) 759-4441 FAX (508) 759-4475 www.groundwateranalytical.com

July 12, 2010

Mr. Matt Fragala Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494

LABORATORY REPORT

Project:

17228

Lab ID:

134157

Received:

06-21-10

Dear Matt:

Enclosed are the analytical results for the above referenced project. The project was processed for Priority turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC or NVLAP standards, except as may be specifically noted, or described in the project narrative. The analytical results relate only to the samples received. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen

Operations Manager

EHJ/elm Enclosures



Sample Receipt Report

Project: Client:

n/a

17228

Environmental Health & Engineering, Inc.

Delivery: GWA Courier

Temperature: **5.2°C**Chain of Custody: **Present**

Lab ID: 134157

Airbill: n/a
Lab Receipt: 06-21-10

Lab ID.	134137			Lu	D Receipt	00-21-10		Custody Scal(s). IIIa
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-1			Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	. n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-2			Solid	6/21/10 0:00	EPA 8082 PC			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	l n/a	n/a	n/a	n/a_	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-3	112178		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
	112179		Solid	6/21/10 0:00	EPA 8082 PC		1	
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab-ID	Field ID		Matrix	Sampled	Method			Notes
			Solid	6/21/10 0:00	EPA 8082 PC	Rc		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-6	112181		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot_	Prep	Ship	
_ n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-7	112182		Solid	6/21/10 0:00	EPA 8082 PC	D _C		Notes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-8	112183		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
						n-		Notes
134157-9	112184 Container	Vandor	Solid	6/21/10 0:00 Preserv	EPA 8082 PCE		Shire	
Con ID n/a	n/a	Vendor n/a	QC Lot	n/a	QC Lot	Prep n/a	Ship n/a	
100	1	1.74	1	1.74	1 1 / CL	11/4	104	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-10	112185		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
1.1.5	F1.15							la
Lab ID	Field ID		Matrix	Sampled	Method			Notes
			Solid		EPA 8082 PC			
Con ID	Container n/a	Vendor n/a	QC Lot	Preserv n/a	QC Lot	Prep n/a	Ship n/a	



Project: 17228
Client: Environmental Health & Engineering, Inc.

Delivery: GWA Courier

Temperature: 5.2°C
Chain of Custody: Present

Lab ID: 134157

Airbill: n/a
Lab Receipt: 06-21-10

Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-12			Solid	6/21/10 0:00	EPA 8082 PCE			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	п/а	n/a	n/a	n/a	n/a	n/a	
					1			
Lab.ID	Field ID		Matrix	Sampled	Method			Notes
134157-13			Solid	6/21/10 0:00	EPA 8082 PCE			
Con ID	Container n/a	Vendor n/a	QC Lot	Preserv n/a	QC Lot	Prep n/a	Ship n/a	
II/a	iva .	IIIa	1174	11/4	11/4	11/4	II/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-14	112189		Solid	6/21/10 0:00	EPA 8082 PCE	3s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a_	n/a	n/a	n/a	n/a	n/a	п/а	n/a	
Lab İD	Field ID		Matrix	Campled	Method			Notes
				Sampled		3.		Notes
134157-15 Con ID	Container	Vendor	Solid QC Lot	6/21/10 0:00 Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			1,74	,,,,,	100	1114	104	
Lab ID	Field ID	•	Matrix	Sampled	Method			Notes
134157-16	112191		Solid	6/21/10 0:00	EPA 8082 PCE	3s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-17			Solid	6/21/10 0:00				Notes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	л/а	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-18	112193		Solid	6/21/10 0:00	EPA 8082 PC	3s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-19			Solid	6/21/10 0:00	EPA 8082 PCE	le .		Notes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method	 		Notes
134157-20	112195		Solid	6/21/10 0:00	EPA 8082 PCE	3s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-21	-	-	Solid	• • • • • • • • • • • • • • • • • • • •	EPA 8082 PC	 3s		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lat	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	1							
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-22		1	Solid		EPA 8082 PCE			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
1 11/74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	



Project: Client:

17228

Environmental Health & Engineering, Inc.

Delivery: GWA Courier

Temperature: 5.2°C

Chain of Custody: Present

Lab ID: 134157

Airbill: n/a Lab Receipt: 06-21-10

Lau ID.	134137			La	o Receipt.	00-21-10		Custody Sean	(5). 11/a
Lab ID	Field ID		Matrix	Sampled	Method	-		Notes	
134157-23	112198		Solid	6/21/10 0:00	EPA 8082 PCI	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-24			Solid	6/21/10 0:00	EPA 8082 PC	Bs	_		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		·
Lab ID	Field ID		Matrix	Sampled	Method	_		Notes	
134157-25		1	Solid	6/21/10 0:00	EPA 8082 PC		C1 *		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	-	
n/a	n/a	n/a	n/a	n/a	n/a	п/а	n/a		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-26	112201		Solid	6/21/10 0:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
1.1.10	et 1 Les			C	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1	
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-27			Solid	6/21/10 0:00	EPA 8082 PC		<u></u>		
Con ID n/a	Container n/a	Vendor n/a	QC Lot n/a	Preserv n/a	QC Lot n/a	Prep n/a	Ship n/a		
11/4	11/4	11/4	11/4	11/4	11/4	1174	11/4		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-28	112203		Solid	6/21/10 0:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	-
134157-29			Solid	6/21/10 0:00	EPA 8082 PC	Rs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
				1	,				
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-30	112205		Solid	6/21/10 0:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-31			Solid	6/21/10 0:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		,
			r-						
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-32		r	Solid	6/21/10 0:00	EPA 8082 PC				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Lab ID	Field ID		Matrix	Sampled	Method			Notes	
134157-33			Solid	6/21/10 0:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		



Project: **17228**

Delivery: GWA Courier

Temperature: 5.2°C

Client: **Environmental Health & Engineering, Inc.** Airbill: n/a

Chain of Custody: Present
Custody Seal(s): n/a

Lab ID:	134157			La	b Receipt:	06-21-10		Custody Seal(s): n/a
Lah ID	Field ID		Materia	Campled	Method			Notes
Lab ID			Matrix	Sampled		D -		Notes
134157-34			Solid		EPA 8082 PC	ı		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-35	112210		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-36			Solid	· ·	EPA 8082 PC	Re		itotes
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	I
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
11/4	100	11/4	104		1,04]	104	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-37	112212		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-38			Solid	6/21/10 0:00	EPA 8082 PC	Bs		-
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
			-					
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-39	112214		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-40			Solid		EPA 8082 PC	D.		Troics
		Mandan.					Chin	1
Con ID	Container n/a	Vendor n/a	QC Lot n/a	Preserv n/a	QC Lot	Prep n/a	Ship n/a	
11/4	104	11/4		11/4	100	11/4	J '''a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-41	112216		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
1 at 1D	Eigld ID		Madele	Camalad	Markad			Notes
Lab ID	Field ID		Matrix	Sampled	Method			Isotes
134157-42		Manatan	Solid	6/21/10 0:00	EPA 8082 PC		Ci-1-	
Con ID n/a	Container n/a	Vendor n/a	QC Lot n/a	Preserv n/a	QC Lot	Prep n/a	Ship n/a	
117.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 1//4	100	1,74	1 104	1 174	1 1974	1
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-43	112218		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-44			Solid	6/21/10 0:00	EPA 8082 PC	Rs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
						·	<u> </u>	



Project: **17228**

Delivery: GWA Courier

Temperature: 5.2°C

Client:

Environmental Health & Engineering, Inc. Lab ID: 134157

Airbill: n/a

Chain of Custody: Present

Lab Receipt: 06-21-10

Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-45	112220		Solid	6/21/10 0:00	EPA 8082 PCI	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			_	Notes
134157-46	112221		Solid	6/21/10 0:00	EPA 8082 PC	Bs			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method			Notes
134157-47	112222		Solid	6/21/10 0:00	EPA 8082 PC	Bs		
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
n/a	n/a	n/a	n/a	п/а	n/a	n/a	n/a	



Data Certification

Project:

17228

Lab ID:

134157

Client: Environmental Health & Engineering, Inc. Received: 06-21-10 19:40

MA DEP Compendium of Analytical Methods

Project Location: n/a MA DEP RTN: n/a

This Form provides certifications for the following data set:

EPA 8082: 134157-1 through -47

Sample Matrices: Groundwater () Soil/Sediment (X) Drinking Water () Other ()

		-	0							
EPA	8082:	134157-1 through	4 7							
Sam	ole Matrices:	Groundwater ()	Soil/Sediment	(X)	Drinking Wa	iter ()	Othe	. ()		
MCF	SW-846	82608 ()	8151A	()	83	30 ()	6010E	()	7470A/1A	()
Met	ods Used	8270C ()	8081A	()	VI	PH ()	6020/	. ()	9012A ²	()
As spe	cified in MA DEP	8082 (X)	8021B	()	EF	PH ()	70 0 0 S	()	Other	()
	endium of Analytical	1. List Release Tracking N	umber (RTN), if known							
Metho	ds.	2. SW-846 Method 9012A	(Equivalent to 9014) o	or MA E	EP Physiologicall	y Available	Cyanide (PAC) M	ethod		
(check	all that apply)	3. S - SW-846 Methods 70	00 Series. List individ	ual metl	nod and analyte.					
	An affirmative res	sponse to questions A	, B, C and D is re	quire	d for "Presum	ptive Ce	ertainty" status			
Α.	Were all can	ples received by the	laboratory in a co	anditi	on consistent	with				
٨.		ed on the Chain-of-Cu	•						Yes	
		d on the chain of ca			or the data se					
В.	Were all OA	/QC procedures requ	ired for the speci	fied a	nalytical meth	nod(s)		1		
	•	his report followed, i	•		•			1		
		narrative QC data tha								
	standards or	•							Yes	
									.	
C.	Does the ana	alytical data included	in this report me	et all	the requireme	ents				
	for "Presump	otive Certainty," as de	scribed in Section	n 2.0	of the MA DE	P				
	document C	AM VII A, Quality As	surance and Qua	lity C	ontrol Guidel	ines				
	for the Acqu	isitio <mark>n and Reporting</mark>	of Analytical Da	ta ?				:	No	
D.	VPH and EP	H methods only: Wa	s the VPH or EPH	l metl	nod run witho	out				
		odifications, as speci							n/a	
	A response to qu	estions E and F below	is required for "	Presui	nptive Certai	nty" stat	us.			
E.	Were all OC	performance standar	ds and recomme	ndatio	ns for the					
	•	thods achieved?							No	

F. Were results for all analyte-list compounds/elements for the specified method(s) reported?

Yes

All No answers are addressed in the attached Project Narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:

Printed Name:

Position:

Operations Manager

Date:

07-12-10



112176 Field 1D: Matrix: Solid Plastic Bag 17228 Container: Project: Environmental Health & Engineering, Inc. Preservation: Client: Cool Laboratory ID: 134157-1 QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 1.2 g Extracted: 06-22-10 19:00 Final Volume: 1 ml 06-24-10 01:30 Cleaned Up: Percent Solids: n/a 06-28-10 18:45 Dilution Factor: 5 Analyzed: CRL Analyst:

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000
53469-21-9	Aroclor 1242	BRI.		ug/Kg	5,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	5,000
11097-69-1	Aroclor 1254	11,000	2C (10000)*	ug/Kg	5,000
11096-82-5	Aroclor 1260	/ BRL		ug/Kg	5,000
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	5,000
11100-14-4	Aroclor 1268 [†]	BRI.		ug/Kg	5,000

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	170	120	71 %	30 - 150 %
Column	Decachlorobiphenyl	170	110	66 %	30 - 15 0 %
Second	Tetrachloro-m-xylene	170	120	71 %	30 - 150 %
Column	Decachlorobiphenyl	170	100	61 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Contirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: Project:

112177

Matrix:

Solid Plastic Bag

17228

Container:

Client:

Environmental Health & Engineering, Inc.

Preservation:

Coal

Laboratory ID:

134157-2

QC Batch ID:

PB-3468-X

Sampled:

06-21-10 00:00

Instrument ID: Sample Weight: GC-11 Agilent 6890 3.1 g

Received: Extracted: 06-21-10 19:40 06-22-10 19:00

Final Volume: Percent Solids: 1 mL

Cleaned Up: Analyzed:

06-24-10 01:30 06-28-10 02:29

Dilution Factor:

n/a 50000

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	19,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	19,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	19,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	19,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	19,000,000
11097-69-1	Aroclor 1254	40,000,000 2C (39000000)*	ug/Kg	19,000,000
11096-82-5	Araclor 1260	, BRI	ug/Kg	19,000,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	19,000,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	19,000,000

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	65	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	65	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	65	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	65	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: 112178 Matrix: Solid Project: 17228 Container: Plastic Bag Environmental Health & Engineering, Inc. Client: Preservation: Cool QC Batch ID: PB-3468-X Laboratory ID: 134157-3 GC-11 Agilent 6890 06-21-10 00:00 Instrument ID: Sampled: Received: 06-21-10 19:40 Sample Weight: 2 g 06-22-10 19:00 Final Volume: Extracted: 1 mL 06-24-10 01:30 Percent Solids: Cleaned Up: n/a Analyzed: 06-28-10 02:53 Dilution Factor: 20000 Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	12,000,000	
11104-28-2	Aroclor 1221	BRL		ug/Kg	12,000,000	
11141-16-5	Aroclor 1232	BRL		ug/Kg	12,000,000	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	12,000,000	
11097-69-1	Aroclor 1254	44,000,000	2C (43000000)*	ug/Kg	12,000,000	
11096-82-5	Aroclor 1260	BRL		ug/Kg	12,000,000	
37324-23-5	Aroclor 1262 t	BRL		ug/Kg	12,000,000	
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	12,000,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	100	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	100	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	100	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	100	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:

112179

Matrix:

Solid

Project:

17228

Container: Preservation:

Plastic Bag

PB-3468-X

Client:

Environmental Health & Engineering, Inc.

QC Batch ID:

Cool

Laboratory ID:

134157-4

Instrument ID:

GC-11 Agilent 6890

Sampled: Received: 06-21-10 00:00

Sample Weight:

1.9 g

Extracted: Cleaned Up: 06-21-10 19:40 06-22-10 19:00 06-24-10 01:30 06-28-10 03:16

Final Volume: Percent Solids: Dilution Factor: 1 mL n/a 20000

Analyzed: Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	13,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	13,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	13,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	13,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	13,000,000
11097-69-1	Aroclor 1254	42,000,000 2C (41000000)*	ug/Kg	13,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	13,000,000
37324-23-5	Aroclor 1262	BRL	ug/Kg	13,000,000
11100-14-4	Aroclor 1268	BRL	ug/Kg	13,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	110	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	110	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	110	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	110	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



112180 Field ID: Solid Matrix: 17228 Plastic Bag Project: Container: Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-5 QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890

06-21-10 19:40 Received: Sample Weight: 6.2 g Extracted: 06-22-10 19:00 Final Volume: 1 mL Cleaned Up: 06-24-10 01:30 Percent Solids: n/a Analyzed: 06-28-10 03:39 Dilution Factor: 50000 Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	9,800,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	9,800,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	9,800,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	9,800,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	9,800,000
11097-69-1	Aroclor 1254	47,000,000 2C (43000000)	ug/Kg	9,800,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	9,800,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	9,800,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	9,800,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	32	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	32	n/a	d	30 - 150 %	
Second	Tetrachloro-m -xylene	32	n/a	d	30 - 150 %	
Column	Decachlorobiohenyl	32	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution. d



Field ID: 112181 Project: 17228

Matrix: Container: Solid **Plastic Bag**

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

QC Batch ID: Instrument ID: PB-3468-X GC-11 Agilent 6890

Sampled: Received: 06-21-10 00:00

134157-6

Sample Weight: Final Volume:

5.6 g

Extracted: Cleaned Up: 06-21-10 19:40 06-22-10 19:00 06-24-10 01:30

06-28-10 01:18

Percent Solids: Dilution Factor: 1 mL n/a 10

Analyzed: Analyst:

CRL

CAS Number	Analyte	Concentration	Concentration Notes				
12674-11-2	Aroclor 1016	BRL		ug/Kg	2,200		
11104-28-2	Aroclor 1221	BRL		ug/Kg	2,200		
11141-16-5	Aroclor 1232	BRL		ug/Kg	2,200		
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	2,200		
11097-69-1	Aroclor 1254	36,000	e 2C (36000)*	ug/Kg	2,200		
11096-82-5	Aroclor 1260	BRL	BRL				
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	2,200			
11100-14-4	Aroclor 1268 †	BRL	BRL				

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	36	24	66 %	30 - 150 %	
Column	Decachlorobiphenyl	36	18	51 %	30 - 150 %	
Second	Tetrachloro-m-xylene	36	26	72 %	30 - 150 %	
Column	Decachlorobiphenyl	36	17	48 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Indicates concentration exceeded calibration range for the analyte.



Field ID: 112181 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool 134157-6RA1 QC Batch ID: PB-3468-X Laboratory ID: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Sampled: Received: Sample Weight: 06-21-10 19:40 5.6 g 06-22-10 19:00 Final Volume: Extracted: 1 mL 06-24-10 01:30 Percent Solids: Cleaned Up: n/a 06-28-10 14:42 Dilution Factor: 20 Analyzed: Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	4,300
11104-28-2	Aroclor 1221	BRL	ug/Kg	4,300
11141-16-5	Aroclor 1232	BRL	ug/Kg	4,300
53469-21-9	Aroclor 1242	BRL	ug/Kg	4,300
12672-29-6	Aroclor 1248	BRL	ug/Kg	4,300
11097-69-1	Aroclor 1254	33,000 2C (29000)*	ug/Kg	4,300
11096-82-5	Aroclor 1260	BRL	ug/Kg	4,300
37324-23-5	Aroclor 1262	BRL	ug/Kg	4,300
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	4,300

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	36	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	36	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	36	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	36	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: **112182** Project: **17228**

Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

n/a

5

Laboratory ID:

134157-7

QC Batch ID: Instrument ID: PB-3468-X GC-11 Agilent 6890

Sampled: Received: 06-21-10 00:00 06-21-10 19:40 06-22-10 19:00

Sample Weight: Final Volume:

13 g 1 mL

Extracted: Cleaned Up: Analyzed:

06-24-10 01:30 06-28-10 01:42

Percent Solids: Dilution Factor:

Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	470
11104-28-2	Aroclor 1221	BRL	ug/Kg	470
11141-16-5	Aroclor 1232	BRL	ug/Kg	470
53469-21-9	Aroclor 1242	BRL	ug/Kg	470
12672-29-6	Aroclor 1248	BRL	ug/Kg	470
11097-69-1	Aroclor 1254	7,300 e 2 C (6900)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL	ug/Kg	470
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	470
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	470

QC Surrogate Compound		Spiked	Spiked Measured Recovery		QC Limits
First	Tetrachloro-m -xylene	16	5	32 %	30 - 150 %
Column	Decachlorobiphenyl	16	5	32 %	30 - 150 %
Second	Tetrachloro-m-xylene	16	6	35 %	30 - 150 %
Column	Decachlorobiphenyl	16	4	27 % m	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- e Indicates concentration exceeded calibration range for the analyte.
- m Surrogate recovery outside recommended limits due to sample matrix interference.



Field ID:

112182

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-7RA1

QC Batch ID:

PB-3468-X

Sampled:

06-21-10 00:00

Instrument ID: Sample Weight: GC-11 Agilent 6890

Received:

06-21-10 19:40

Final Volume:

13 g 1 mL

Extracted: Cleaned Up: 06-22-10 19:00 06-24-10 01:30 06-28-10 15:06

Percent Solids:

n/a

Analyzed: Analyst:

CRL

Dilution Factor:

10

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	940
11104-28-2	Aroclor 1221	BRL		ug/Kg	940
11141-16-5	Aroclor 1232	BRL.		ug/Kg	940
53469-21-9	Aroclor 1242	BRL	BRL		
12672-29-6	Aroclor 1248	BRL		ug/Kg	940
11097-69-1	Aroclor 1254	10,000	2C (9000)*	ug/Kg	940
11096-82-5	Aroclor 1260	BRL		ug/Kg	940
37324-23-5	Aroclor 1262 [†]	BRL	BRL		
11100-14-4	Aroclor 1268 [†]	BRI		ug/Kg	940

QC Surrogate Compound		Compound Spiked Measured		Recovery	QC Limits	
First	Tetrachloro-m -xylene	16	8	52 %	30 - 150 %	
Column	Decachlorobiphenyl	16	6	39 %	30 - 150 %	
Second	Tetrachloro-m-xylene	16	8	54 %	30 - 150 %	
Column	Decachlorobiphenyl	16	8	48 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from second column. 2C



Field ID: Project:

112183 17228

Matrix:

Container:

Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation: QC Batch ID: Cool

Laboratory ID: Sampled:

134157-8

CRL

06-21-10 00:00

Instrument ID: Sample Weight:

PB-3468-X GC-11 Agilent 6890

Received: Extracted: 06-21-10 19:40 06-22-10 19:00

Final Volume:

8.5 g 1 mL

Cleaned Up: Analyzed:

06-24-10 01:30 06-28-10 02:05

Percent Solids: Dilution Factor:

n/a 10

Analyst:

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	1,400
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,400
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,400
53469-21-9	Aroclor 1242	BRL.		ug/Kg	1,400
12672-29-6	Aroclor 1248	BRL.		ug/Kg	1,400
11097-69-1	Aroclor 1254	5,800	1C (5700)*	ug/Kg	1,400
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,400
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	1,400	
11100-14-4	Aroclor 1268 ¹	BRL.	ug/Kg	1,400	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	24	19	80 %	30 - 150 %
Column	Decachlorobiphenyl	24	14	57 %	30 - 150 %
Second	Tetrachloro-m-xylene	24	18	78 %	30 - 150 %
Column	Decachlorobiphenyl	24	12	50 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column.



Field ID:

112184 17228

Matrix:

Solid

Project:

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID: Sampled:

134157-9

QC Batch ID: Instrument ID: PB-3468-X

Received: Extracted: 06-21-10 00:00 06-21-10 19:40 06-22-10 19:00

Sample Weight: Final Volume:

GC-11 Agilent 6890 5 g

Cleaned Up: Analyzed:

06-24-10 01:30 06-28-10 04:03

Percent Solids: Dilution Factor:

1 mL n/a 50000

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	12,000,000
11104-28-2	Aroclor 1221	BRL	u g/Kg	12,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	12,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	12,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	12,000,000
11097-69-1	Aroclor 1254	51,000,000 2C (49000000)*	ug/Kg	12,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	12,000,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	12,000,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	12,000,000

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	40	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	40	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	40	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	40	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: 112185 Matrix: Solid Project: 17228 Container: **Plastic Bag** Client: Environmental Health & Engineering, Inc. Preservation: Cool 134157-10 Laboratory ID: QC Batch ID: PB-3468-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 4 g

 Received:
 06-21-10 19:40
 Sample Weight:
 4 g

 Extracted:
 06-22-10 19:00
 Final Volume:
 1 mL

 Cleaned Up:
 06-24-10 01:30
 Percent Solids:
 n/a

 Analyzed:
 06-28-10 04:27
 Dilution Factor:
 50000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	15,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	15,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	15,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	15,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	15,000,000
11097-69-1	Aroclor 1254	38,000,000 2C (37000000)* ug/Kg	15,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	15,000,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	15,000,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	15.000.000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	50	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	50	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	50	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	50	n/a	d	30 - 150 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Project: 17228
Client: Environmental Health & Engineering, Inc.

Matrix: Solid
Container: Plasti
Preservation: Cool

Plastic Bag Cool

Laboratory ID: 134157-11
Sampled: 06-21-10 (
Received: 06-21-10 1

Field ID:

Extracted:

Analyzed:

Cleaned Up:

06-21-10 00:00 06-21-10 19:40 06-22-10 19:00 06-24-10 01:30 06-28-10 04:50

112186

Instrument ID: Sample Weight:

QC Batch ID:

PB-3468-X GC-11 Agilent 6890

Sample Weight: Final Volume: Percent Solids: 2.9 g 1 mL

Percent Solids: n/a
Dilution Factor: 50000

Analyst: CRL

CAS Number	Analyte	Concentration No	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	21,000,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	21,000,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	21,000,000
53469-21-9	Aroclor 1242	BRL	BRL		
12672-29-6	Aroclor 1248	BRL		ug/Kg	21,000,000
11097-69-1	Aroclor 1254	54,000,000 20	(50000000)*	ug/Kg	21,000,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	21,000,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	21,000,000	
11100-14-4	Aroclor 1268 [†]	BRL	BRL		

QC Surrogate Compound		Spiked		Recovery	QC Limits	
First	Tetrachloro-m-xylene	69	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	69	n/a	d	30 - 150 %	
Second	Tetrachloro-m-xylene	69	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	69	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Solid

Plastic Bag

Field ID: 112187 Matrix: Project: 17228 Container: Environmental Health & Engineering, Inc.

Client: Preservation: Cool

Laboratory ID: 134157-12 QC Batch ID: PB-3485-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 5.4 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-07-10 21:59 Analyzed: Dilution Factor: 50000

CRL Analyst:

CAS Number	Analyte	Concentration Not	tes Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	11,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	11,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	11,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	11,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	11,000,000
11097-69-1	Aroclor 1254	67,000,000 2C	(62000000)* ug/Kg	11,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	11,000,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	11,000,000
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	11,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m -xylene	37	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	37	n/a	d	30 - 150 %	
Second	Tetrachloro-m -xylene	37	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	37	n/a	d	30 - 150 %	

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID:112188Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-13
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 3.3 g 06-30-10 00:30 Extracted: Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-07-10 22:23 Analyzed: Dilution Factor: 50000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	18,000,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	18,000,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	18,000,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	18,000,000
12672-29-6	Aroclor 1248	BRL	ug/Kg	18,000,000
11097-69-1	Aroclor 1254	70,000,000 2C (67000000)	ug/Kg	18,000,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	18,000,000
37324-23-5	Aroclor 1262	BRL	ug/Kg	18,000,000
11100-14-4	Aroclar 1268 [†]	BRL	ug/Kg	18,000,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	60	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	60	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	60	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	60	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

Results are reported on an as received basis

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- t Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: 112189 Project:

17228

Matrix: Container: Solid **Plastic Bag**

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool PB-3485-X

n/a

10

Laboratory ID:

134157-14

QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Sample Weight: Final Volume:

6.5 g 1 mL

Extracted: Cleaned Up: Analyzed:

06-30-10 00:30 07-01-10 21:30 07-08-10 20:40

Percent Solids: Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12 674-11-2	Aroclor 1016	BRL	BRL			
11104-28-2	Aroclor 1221	BRL		ug/Kg	1,900	
11141-16-5	Aroclor 1232	BRL		ug/Kg	1,900	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	1,900	
11097-69-1	Aroclor 1254	5,100	2C (4300)*	ug/Kg	1,900	
11096-82-5	Aroclor 1260	BRL		ug/Kg	1,900	
37324-23-5	Aroclor 1262 [†]	BRL	BRL			
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	1,900	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	31	16	52 %	30 - 150 %	
Column	Decachlorobiphenyl	31	23	73 %	30 - 150 %	
Second	Tetrachloro-m -xylene	31	21	68 %	30 - 150 %	
Column	Decachlorobiphenyl	31	27	87 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: Project: 112190 17228 Matrix: Container:

Solid

Client:

Environmental Health & Engineering, Inc.

Preservation:

Plastic Bag Cool

Laboratory ID:

134157-15

QC Batch ID:

PB-3485-X

Sampled:

06-21-10 00:00

Instrument ID: Sample Weight:

GC-11 Agilent 6890

Received: Extracted: Cleaned Up: 06-21-10 19:40 06-30-10 00:30 07-01-10 21:30

Final Volume:

13 g 1 mL n/a

Analyzed:

07-01-10 21:30 07-08-10 07:42

CRL

Percent Solids:

Dilution Factor: 10

Analyst:

CAS Number	Analyte	Concentration	Concentration Notes BRL		Reporting Limit		
12674-11-2	Aroclor 1016	BRL			950		
11104-28-2	Aroclor 1221	BRL		ug/Kg	950		
11141-16-5	Aroclor 1232	BRL	BRL				
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		u g/K g	950		
11097-69-1	Aroclor 1254	2,700	2C (2600)*	ug/Kg	950		
11096-82-5	Aroclor 1260	BRL		ug/Kg	950		
37324-23-5	Aroclor 1262 [†]	BRL	BRL				
11100-14-4	Aroclor 1268 †	BRL	BRI				

QC Surrogate Compound		Surrogate Compound Spiked Measured		Recovery	QC Limits	
First	Tetrachloro-m-xylene	16	8	51 %	30 - 150 %	
Column	Decachlorobiphenyl	16	11	67 %	30 - 150 %	
Second	Tetrachloro-m-xylene	16	5	34 %	30 - 150 %	
Column	Decachlorobiphenyl	16	13	85 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: **112191**Project: **17228**

Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

QC Batch ID:

PB-3485-X

Sampled: Received: 134157-16 06-21-10 00:00

Instrument ID: Sample Weight:

GC-11 Agilent 6890

Extracted:

06-21-10 19:40 06-30-10 00:30

Final Volume: Percent Solids: 3.8 g 1 mL

Cleaned Up: Analyzed: 07-01-10 21:30 07-07-10 22:46

Dilution Factor:

ds: n/a tor: **500**

Analyst:

CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	160,000	
11104-28-2	Aroclor 1221	BRL		ug/Kg	160,000	
11141-16-5	Aroclor 1232	BR1.	BRL			
53469-21-9	Aroclor 1242	BRL	BRL.			
12672-29-6	Aroclor 1248	BRL		ug/Kg	160,000	
11097-69-1	Aroclor 1254	790,000	2C (750000)	ug/Kg	160,000	
11096-82-5	Aroclor 1260	BRL		ug/Kg	160,000	
37324-23-5	Aroclor 1262 [†]	BRL	BRL			
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	160,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	53	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	53	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: Project:

112192 17228

Matrix: Container: Solid

Client:

Environmental Health & Engineering, Inc.

Preservation:

Plastic Bag Cool

Laboratory ID:

134157-17

QC Batch ID: Instrument ID: PB-3485-X

Sampled:

06-21-10 00:00

Sample Weight:

GC-11 Agilent 6890

Received: Extracted: Cleaned Up: 06-21-10 19:40 06-30-10 00:30 07-01-10 21:30

Final Volume:

0.64 g 1 mL

Analyzed:

07-08-10 08:06

Percent Solids:

n/a Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	9,400	
11104-28-2	Aroclor 1221	BRL		ug/Kg	9,400	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	9,400	
11097-69-1	Aroclor 1254	30,000	2C (28000)*	ug/Kg	9,400	
11096-82-5	Aroclor 1260	BRL		ug/Kg	9,400	
37324-23-5	Aroclor 1262 [†]	BRL	BRL			
11100-14-4	Aroclor 1268 ¹	BRL	BRL			

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	310	180	58 %	30 - 150 %
Column	Decachlorobiphenyl	310	180	57 %	30 - 150 %
Second	Tetrachloro-m -xylene	310	200	63 %	30 - 150 %
Column	Decachlorobiphenyl	310	230	73 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID: 112193 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool 134157-18 QC Batch ID: Laboratory ID: PB-3485-X

Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890

 Received:
 06-21-10 19:40
 Sample Weight:
 3.8 g

 Extracted:
 06-30-10 00:30
 Final Volume:
 1 mL

 Cleaned Up:
 07-01-10 21:30
 Percent Solids:
 n/a

 Analyzed:
 07-08-10 13:12
 Dilution Factor:
 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit			
12674-11-2	Aroclor 1016	BRL	BRL					
11104-28-2	Aroclor 1221	BRL		ug/Kg	310			
11141-16-5	Aroclor 1232	BRL		ug/Kg	310			
53469-21-9	Aroclor 1242	BRL	BRL					
12672-29-6	Aroclor 1248	BRL		ug/Kg	310			
11097-69-1	Aroclor 1254	2,600	2C (2600)*	ug/Kg	310			
11096-82-5	Aroclor 1260	BRL		ug/Kg	310			
37324-23-5	Aroclor 1262 T	BRL	ug/Kg	310				
11100-14-4	Aroclor 1268 †	BRL	BRL					

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	52	25	48 %	30 - 150 %
Column	Decachlorobiphenyl	52	26	50 %	30 - 150 %
Second	Tetrachloro-m-xylene	52	23	44 %	30 - 150 %
Column	Decachlorobiphenyl	52	38	72 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:

112194

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-19

QC Batch ID:

PB-3485-X

Sampled:

06-21-10 00:00

Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 06-21-10 19:40 06-30-10 00:30

Sample Weight: Final Volume: Percent Solids:

5.4 g 1 mL n/a

Cleaned Up: Analyzed:

07-01-10 21:30 07-08-10 13:36

Dilution Factor:

Analyst:

CRL.

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	220
11104-28-2	Aroclor 1221	BRL	ug/Kg	220
11141-16-5	Aroclor 1232	BRL	ug/Kg	220
53469-21-9	Aroclor 1242	BRL	ug/Kg	220
12672-29-6	Aroclor 1248	BRL	ug/Kg	220
11097-69-1	Aroclor 1254	1,500 2C (1400)*	ug/Kg	220
11096-82-5	Aroclor 1260	BRL	ug/Kg	220
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	220
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	220

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	37	9	26 % m	30 - 150 %
Column	Decachlorobiphenyl	37	9	23 % m	30 - 150 %
Second	Tetrachloro-m -xylene	37	9	25 % m	30 - 150 %
Column	Decachlorobiphenyl	37	14	37 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery outside recommended limits due to sample matrix interference. m



Field ID: 112195 Project: 17228

Matrix: Container: Solid Plastic Bag

Client: Environmental Health & Engineering, Inc. Preservation: QC Batch ID: Cool PB-3485-X

1 mL

n/a

1

134157-20 Laboratory ID: Sampled:

06-21-10 00:00 Instrument ID: 06-21-10 19:40 Sample Weight:

GC-11 Agilent 6890 3.6 g

Received: Extracted: 06-30-10 00:30 Cleaned Up: 07-01-10 21:30 07-08-10 14:00 Analyzed:

Final Volume: Percent Solids: Dilution Factor:

CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	330
11104-28-2	Aroclor 1221	BRL	ug/Kg	330
11141-16-5	Aroclor 1232	BRL	ug/Kg	330
53469-21-9	Aroclor 1242	BRL	ug/Kg	330
12672-29-6	Aroclor 1248	BRL	ug/Kg	330
11097-69-1	Aroclor 1254	2,800 2C (2600)*	ug/Kg	330
11096-82-5	Aroclor 1260	BRL	ug/Kg	330
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	330
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	330

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	55	19	34 %	30 - 150 %
Column	Decachlorobiphenyl	55	17	31 %	30 - 150 %
Second	Tetrachloro-m-xylene	55	19	34 %	30 - 150 %
Column	Decachlorobiphenyl	55	25	46 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

2C Concentration reported from second column.



112196 Field ID: Matrix: Solid Plastic Bag Project: 17228 Container: Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 134157-21 QC Batch ID: PB-3485-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 3.7 g

Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-07-10 23:10 Analyzed: Dilution Factor: 500

CRL Analyst:

CAS Number	Analyte	Concentration Not	Concentration Notes			
12674-11-2	Aroclor 1016	BRL		ug/Kg	160,000	
11104-28-2	Aroclor 1221	BRL		ug/Kg	160,000	
11141-16-5	Aroclor 1232	BRL		ug/Kg	160,000	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	160,000	
11097-69-1	Aroclor 1254	1,000,000 2C	(970000)	ug/Kg	160,000	
11096-82-5	Aroclor 1260	BRL		ug/Kg	160,000	
37324-23-5	Arodor 1262	BRL	ug/Kg	160,000		
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	160,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	54	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	54	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	54	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	54	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Matrix:

Container:

Preservation:

Solid

Cool

Plastic Bag

Field ID: 112197
Project: 17228
Client: Environmental Health & Engineering, Inc.

Laboratory ID: 134157-22 QC Batch ID: PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

 Received:
 06-21-10 19:40
 Sample Weight:
 1.1 g

 Extracted:
 06-30-10 00:30
 Final Volume:
 1 mL

 Extracted:
 06-30-10 00:30
 Final Volume:
 1 mL

 Cleaned Up:
 07-01-10 21:30
 Percent Solids:
 n/a

 Analyzed:
 07-08-10 08:29
 Dilution Factor:
 5

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit		
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,500		
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,500		
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,500		
53469-21-9	Aroclor 1242	BRL	BRL				
12 67 2-29 -6	Aroclor 1248	BRL		ug/Kg	5,500		
1 1097-69- 1	Aroctor 1254	11,000	2C (11000)*	ug/Kg	5,500		
11096-82-5	Aroclor 1260	BRL	BRL				
37324-23-5	Aroclor 1262 T	BRL	BRL				
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	5,500		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	180	93	51 %	30 - 150 %
Column	Decachlorobiphenyl	180	90	49 %	30 - 150 %
Second	Tetrachloro-m -xylene	180	110	59 %	30 - 150 %
Column	Decachlorobiphenyl	180	110	60 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:112198Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-23
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 2.5 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-08-10 14:23 Analyzed: Dilution Factor: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	480	
11104-28-2	Aroclor 1221	BRL		ug/Kg	480	
11141-16-5	Aroclor 1232	BRL		ug/Kg	480	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	480	
11097-69-1	Aroclor 1254	5,000	2C (4800)*	ug/Kg	480	
11096-82-5	Aroclor 1260	BRL	1	ug/Kg	480	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	480		
11100-14-4	Aroclor 1268 ¹	BRL		u g/Kg	480	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	80	31	39 %	30 - 150 %
Column	Decachlorobiphenyl	80	33	42 %	30 - 150 %
Second	Tetrachloro-m -xylene	80	31	39 %	30 - 150 %
Column	Decachlorobiphenyl	80	43	54 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:112199Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

Laboratory ID: 134157-24 QC Batch ID: PB-3485-X

Instrument ID: Sampled: 06-21-10 00:00 GC-11 Agilent 6890 06-21-10 19:40 Sample Weight: Received: 1.9 g Extracted: 06-30-10 00:30 Final Volume: 1 mL 07-01-10 21:30 Cleaned Up: Percent Solids: n/a 07-08-10 14:47 Dilution Factor: Analyzed: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL.	BRL			
11104-28-2	Aroclor 1221	BRI.		ug/Kg	630	
11141-16-5	Aroclor 1232	BRL		ug/Kg	630	
53469-21-9	Aroclor 1242	BRL	BRL			
12672-29-6	Aroclor 1248	BRL		ug/Kg	630	
11097-69-1	Aroclor 1254	5,000	2C (4600)*	ug/Kg	630	
11096-82-5	Aroclor 1260	BRL.	ug/Kg	630		
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	630		
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	630	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	110	39	37 %	30 - 150 %
Column	Decachlorobiphenyl	110	39	37 %	30 - 150 %
Second	Tetrachloro-m-xylene	110	39	37 %	30 - 150 %
Column	Decachlorobiphenyl	110	61	57 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field tD:

112200

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-25

QC Batch ID:

PB-3485-X

Sampled:

06-21-10 00:00

Instrument ID: Sample Weight: GC-11 Agilent 6890

Received: Extracted: 06-21-10 19:40 06-30-10 00:30

Final Volume:

3.1 g 1 mL

Cleaned Up: Analyzed:

07-01-10 21:30 07-08-10 19:30

Percent Solids: Dilution Factor: n/a 1000

Analyst:

CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit
12674-11-2	Aroctor 1016	BRL	BRL		
11104-28-2	Aroclor 1221	BRL		ug/Kg	380,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	380,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	380,000	
12672-29-6	Aroclor 1248	BRL	ug/Kg	380,000	
11097-69-1	Aroclor 1254	1,900,000	ug/Kg	380,000	
11096-82-5	Aroclor 1260	BRL	ug/Kg	380,000	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	380,000	
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	380,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	64	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	64	n/a	ď	30 - 150 %	
Second	Tetrachloro-m-xylene	64	n/a	ď	30 - 150 %	
Column	Decachlorobiphenyl	64	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution. d



Field ID: 112201 Matrix: Solid
Project: 17228 Container: Plastic Bag
Client: Environmental Health & Engineering, Inc. Preservation: Cool

 Laboratory ID:
 134157-26
 QC Batch ID:
 PB-3485-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 4.1 g Extracted: 06-30-10 00:30 Final Volume: 1 mL Cleaned Up: 07-01-10 21:30 Percent Solids: n/a 07-08-10 19:53 Analyzed: Dilution Factor: 1000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL	ug/Kg	290,000	
11104-28-2	Aroclor 1221	BRL	ug/Kg	290,000	
11141-16-5	Aroclor 1232	BRL	ug/Kg	290,000	
53469-21-9	Aroclor 1242	BRL	ug/Kg	290,000	
12672-29-6	Aroclor 1248	BRL	u g/Kg	290,000	
11097-69-1	Aroclor 1254	1,400,000 2C (1300000)⁴ ug/Kg	290,000	
11096-82-5	Aroclor 1260	BRL	ug/Kg	290,000	
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	290,000	
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	290,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits 30 - 150 %	
First Tetrachloro-m-xylene		48	n/a	d		
Column	Decachlorobiphenyl	48	n/a	d	30 - 150 %	
Second	Tetrachloro-m-xylene	48	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	48	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- IRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:

112202

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-27

QC Batch ID: Instrument ID: PB-3485-X

Sampled: Received: Extracted: 06-21-10 00:00 06-21-10 19:40 06-30-10 00:30

Sample Weight: Final Volume:

GC-11 Agilent 6890 3.7 g

Cleaned Up: Analyzed:

07-01-10 21:30 07-08-10 20:17

Percent Solids: Dilution Factor: 1 mL n/a 1000

Analyst:

CRL

CAS Number	Analyte	Concentration No	Concentration Notes		Reporting Limit
12674-11-2	Aroclor 1016	BRL	BRL		
11104-28-2	Aroclor 1221	BRL	ug/Kg	320,000	
11141-16-5	Aroclor 1232	BRL	ug/Kg	320,000	
53469-21-9	Aroclor 1242	BRL	ug/Kg	320,000	
12672-29-6	Aroclor 1248	BRL		ug/Kg	320,000
11097-69-1	Aroclor 1254	1,600,000 20	(1500000)*	ug/Kg	320,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	320,000
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	320,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	320,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	53	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %	
Second	Tetrachloro-m-xylene	53	n/a	d	30 - 150 %	
Column	Decachlorobiphenyl	53	n/a	d	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



112203 Field ID: Project:

17228

Matrix: Container: Solid Plastic Bag

PB-34B5-X

Client: Environmental Health & Engineering, Inc. Preservation: QC Batch ID: Cool

Laboratory ID: 134157-28 Sampled:

06-21-10 00:00 06-21-10 19:40 Instrument ID: Sample Weight: GC-11 Agilent 6890 2.2 g

Received: 06-30-10 00:30 Extracted: 07-01-10 21:30 Cleaned Up: 07-08-10 15:10 Analyzed:

Final Volume: Percent Solids: Dilution Factor:

1 mL n/a 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting-Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	550
11104-28-2	Aroclor 1221	BRL		ug/Kg	550
11141-16-5	Aroclor 1232	BRL		ug/Kg	550
53469-21-9	Aroclor 1242	BRL		ug/Kg	550
12672-29-6	Aroclor 1248	BRL	BRL		550
11097-69-1	Aroclor 1254	2,600	2C (2500)*	u g/K g	550
11096-82-5	Aroclor 1260	BRL		u g/Kg	550
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	550
11100-14-4	Aroclor 1268 [†]	BRL	-	ug/Kg	550

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	91	23	25 % m	30 - 150 %
Column	Decachlorobiphenyl	91	28	30 %	30 - 150 %
Second	Tetrachloro-m-xylene	91	23	26 % m	30 - 150 %
Column	Decachlorobiphenyl	91	31	34 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery outside recommended limits due to sample matrix interference.



Project: 17228

112204

Matrix: Container: Solid

Field ID: Client:

Preservation:

Plastic Bag

Environmental Health & Engineering, Inc.

Cool

Laboratory ID:

134157-29

QC Batch ID: Instrument ID:

PB-3485-X

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Sample Weight: Final Volume:

GC-11 Agilent 6890 **2.3** g

Extracted: Cleaned Up: 06-30-10 00:30 07-01-10 21:30

Percent Solids:

1 mL n/a

Analyzed:

07-08-10 01:42

Dilution Factor:

500

Analyst:	CI
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malyst:	CR
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CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		260,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	260,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	260,000
53469-21-9	Aroclor 1242	BRL		260,000
12672-29-6	Aroclor 1248	BRL		260,000
11097-69-1	Aroclor 1254	1,700,000 2C (1500000)*		260,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	260,000
37324-23-5	Aroclor 1262 †	BRI.		260,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	260,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	88	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	88	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	88	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	88	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be

- reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: Project:

112205 17228

Matrix: Container: Solid Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

QC Batch ID:

PB-3485-X

Sampled:

134157-30 06-21-10 00:00 06-21-10 19:40

Instrument ID: Sample Weight: GC-11 Agilent 6890 1.6 g

Received: Extracted: Cleaned Up:

06-30-10 00:30 07-01-10 21:30

Final Volume: Percent Solids:

Dilution Factor:

1 mL n/a 200

Analyzed: Analyst:

07-08-10 02:09 CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	150,000
11104-28-2	Aroclor 1221	BRL		ug/Kg	150,000
11141-16-5	Aroclor 1232	BRL		ug/Kg	150,000
53469-21-9	Aroclor 1242	BRL		ug/Kg	150,000
12672-29-6	Aroclor 1248	BRL		ug/Kg	150,000
11097-69-1	Aroclor 1254	1,600,000	2C (1400000)*	ug/Kg	150,000
11096-82-5	Aroclor 1260	BRL		ug/Kg	150,000
37324-23-5	Aroclor 1262	BRL		ug/Kg	150,000
11100-14-4	Aroclor 1268 †	BRL		ug/Kg	150,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	120	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	120	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	120	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	120	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- Surrogate recovery not measurable due to required sample dilution.



Project: 17228

Matrix: Container: Solid Plastic Bag

Client:

Field ID:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-31

112206

QC Batch ID:

PB-3485-X

1 mL

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Instrument ID: Sample Weight: GC-11 Agilent 6890 2.9 g

Extracted: Cleaned Up: Analyzed: 06-21-10 19:40 06-30-10 00:30 07-01-10 21:30 07-08-10 15:34

Final Volume: Percent Solids:

Percent Solids: n/a
Dilution Factor: 1

Analyst:

CRL

CAS Number	Ánalyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	420
11104-28-2	Aroclor 1221	BRL	ug/Kg	420
11141-16-5	Aroclor 1232	BRL	ug/Kg	420
53469-21-9	Aroclor 1242	BRL	ug/Kg	420
12672-29-6	Aroclor 1248	BRL	ug/Kg	420
11097-69-1	Aroclor 1254	1,700 2C (1500)*	ug/Kg	420
11096-82-5	Aroclor 1260	BRL	ug/Kg	420
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	420
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	420

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	69	22	32 %	30 - 150 %
Column	Decachlorobiphenyl	69	29	42 %	30 - 150 %
Second	Tetrachloro-m-xylene	69	25	36 %	30 - 150 %
Column	Decachlorobiphenyl.	69	32	47 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.

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то: <u>GW</u>	A.	Needham, MA 02494-2 Please send invoices to ATTN Please send reports to ATTN:	: Accounts Payable				
in all correspor	ndence regarding th	nis matter, please refer to EH&E Project # 17228					
		overed by EH&E Purchase Order # 17728					
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☐ Other



Project Narrative

Project: Client:

17228

Environmental Health & Engineering, Inc.

Lab ID:

134157

Received:

06-21-10 19:40

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

- 1. EPA 8082 Non-conformance: Samples 134157-2 through -5, -6RA1, -9 through -13, -16, -21, -25, -26, -27, -29, -30, -34 through -38, -43 and -44. Samples did not have measureable surrogate recoveries due to required sample dilution.
- 2. EPA 8082 Non-conformance: Samples 134157-6 and -7. Reported results for selected analytes exceeded the high standard of the associated calibration curve. Results are estimated. Samples were reanalyzed and reported with all analytes within calibration.
- 3. EPA 8082 Note: Samples 134157-1 through -17, -21, -22, -25, -26, -27, -29, -30, -32 through -38, -43, -44, -45, -47, -6RA1 and -7RA1. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
- 4. Samples 134157-1 through ~47 were not received with sample collection times listed on the Chain of Custody. Samples were reported with a sampling collection time of 00:00 by the laboratory.
- 5. EPA 8082 Non-conformance: Laboratory control sample (LCS) analytes Aroclor 1260 and Aroclor 1016 were outside recommended recovery limits for QC batch PB-3491-X
- 6. EPA 8082 Non-conformance: Laboratory control sample (LCS) analyte Aroclor 1260 had an RPD recovery outside recommended recovery limits for QC batch PB-3491-X
- 7. EPA 8082 Non-conformance: Sample 134157-28. Sample had a surrogate recovery below recommended recovery limits due to sample matrix interference. No additional sample was available for reanalysis.

Page 58 of 70

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ngineering, Inc.		FROM: Environmental Health ar 117 Fourth Avenue Needham, MA 02494-27	
ro: <u>G</u> w	/A	Please send invoices to ATTN: Please send reports to ATTN:	: Accounts Payable
•	=	nis matter, please refer to EH&E Project # 17228	
The cost of this	s analysis will be co	overed by EH&E Purchase Order # 17228	
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SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
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Field ID: 112207 Matrix: Solid Project: 17228 Container: **Plastic Bag** Client: Environmental Health & Engineering, Inc. Preservation: Cool Laboratory ID: 134157-32 QC Batch ID: PB-3491-X

06-21-10 00:00 Sampled: Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 1.2 g

07-01-10 20:00 Extracted: Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a 07-08-10 08:53 Analyzed: Dilution Factor: 5

CRL Analyst:

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	5,000	
11104-28-2	Aroclor 1221	BRL		ug/Kg	5,000	
11141-16-5	Aroclor 1232	BRL		ug/Kg	5,000	
53469-21-9	Aroclor 1242	BRL		ug/Kg	5,000	
12672-29-6	Aroclor 1248	7,200	7,200 1C (6600)*			
11097-69-1	Aroclor 1254	BRL		ug/Kg	5,000	
11096-82-5	Aroclor 1260	BRL	ug/Kg	5,000		
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	5,000		
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	5,000	

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits	
First	Tetrachloro-m-xylene	170	74	44 %	30 - 150 %	
Column	Decachlorobiphenyl	170	67	40 %	30 - 150 %	
Second	Tetrachloro-m-xylene	170	68	41 %	30 - 150 %	
Column	Decachlorobiphenyl	170	81	48 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID:	112208	Matrix:	Solid
Project:	17228	Container:	Plastic Bag
Client:	Environmental Health & Engineering, Inc.	Preservation:	Cool
Laboratory ID: Sampled: Received: Extracted: Cleaned Up: Analyzed: Analyst:	134157-33 06-21-10 00:00 06-21-10 19:40 07-01-10 20:00 07-01-10 14:00 07-08-10 09:16 CRL	QC Batch ID: Instrument ID: Sample Weight: Final Volume: Percent Solids: Dilution Factor:	PB-3491-X GC-11 Agilent 6890 1.5 g 1 mL n/a 5

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	3,900
11104-28-2	Aroclor 1221	BRL	ug/Kg	3,900
11141-16-5	Aroclor 1232	BRL	ug/Kg	3,900
53469-21-9	Aroclor 1242	BRL	ug/Kg	3,900
12672-29-6	Aroclor 1248	9,500 1C (9300)*	ug/Kg	3,900
11097-69-1	Aroclor 1254	BRL	ug/Kg	3,900
11096-82-5	Aroclor 1260	BRL	ug/Kg	3,900
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	3,900
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	3,900

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	130	56	43 %	30 - 150 %
Column	Decachlorobiphenyl	130	57	44 %	30 - 150 %
Second	Tetrachloro-m-xylene	130	60	46 %	30 - 150 %
Column	Decachlorobiphenyl	130	73	56 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID: Project:

112209

Matrix: Container: Solid Plastic Bag

Client:

17228

Preservation:

Laboratory ID:

Cool PB-3491-X

Sampled:

134157-34

QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Received:

06-21-10 00:00 06-21-10 19:40

Environmental Health & Engineering, Inc.

Sample Weight: Final Volume:

4.4 g 1 mL

Extracted: Cleaned Up: 07-01-10 20:00 07-01-10 14:00 07-08-10 03:00

Percent Solids: Dilution Factor: n/a 20000

Analyzed: Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	5,400,000
11104-28-2	Aroclor 1221	BRL	u g/Kg	5,400,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	5,400,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	5,400,000
12672-29 -6	Aroclor 1248	15,000,000 1C (12000000)*	ug/Kg	5,400,000
11097-69-1	Aroclor 1254	BRL	u g/Kg	5,400,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	5,400,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	5,400,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	5,400,000

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	45	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	4 5	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	4 5	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	4 5	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: 112210 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 134157-35 QC Batch ID: PB-3491-X Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890

Received: 06-21-10 19:40 Sample Weight: 2.8 g Extracted: 07-01-10 20:00 Final Volume: 1 mL 07-01-10 14:00 Cleaned Up: Percent Solids: n/a 07-08-10 03:23 Analyzed: Dilution Factor: 20000

CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	8,700,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	8,700,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	8,700,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	8,700,000
12672-29-6	Aroclor 1248	21,000,000 1C (17000000)*	ug/Kg	8,700,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	8,700,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	8,700,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	8,700,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	8,700,000

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	72	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	72	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	72	n/a	d	3 0 - 150 %
Column	Decachlorobiphenyl	72	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1**C** Concentration reported from first column.
- Surrogate recovery not measurable due to required sample dilution.



Field ID: 112211 Matrix: Solid Project: 17228 Container: Plastic Bag Client: Environmental Health & Engineering, Inc. Preservation: Cool

Laboratory ID: 134157-36 QC Batch ID: PB-3491-X

06-21-10 00:00 GC-11 Agilent 6890 Sampled: Instrument ID: Received: 06-21-10 19:40 Sample Weight: 12 g Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a 07-08-10 03:47 Analyzed: Dilution Factor: 50000

CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	4,800,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	4,800,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	4,800,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	4,800,000
12672-29-6	Aroclor 1248	16,000,000 1C (140000	⊚• ug/Kg	4,800,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	4,800,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	4,800,000
37324-23-5	Araclor 1262 †	BRL	ug/Kg	4,800,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	4,800,000

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	16	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	16	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	16	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	16	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- Surrogate recovery not measurable due to required sample dilution.



112212 Field ID: Solid Matrix: 17228 Plastic Bag Container: Project: Environmental Health & Engineering, Inc. Preservation: Client: Cool 134157-37 QC Batch ID: PB-3491-X Laboratory ID:

Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 10 g Extracted: 07-01-10 20:00 Final Volume: 1 mL 07-01-10 14:00 Cleaned Up: Percent Solids: n/a 07-08-10 04:10 50000 Analyzed: Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	5,900,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	5,900,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	5,900,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	5,900,000
12672-29-6	Aroclor 1248	17,000,000 1C (14000000)*	ug/Kg	5,900,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	5,900,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	5,900,000
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	5,900,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	5,900,000

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	20	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	20	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	20	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	20	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A. Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- t Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:112213Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-38
 QC Batch ID:
 PB-3491-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

06-21-10 19:40 Received: Sample Weight: 7.6 g Extracted: 07-01-10 20:00 Final Volume: 1 mL Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 04:34 Dilution Factor: 50000

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	7,900,000
11104-28-2	Aroclor 1221	BRL	ug/Kg	7,900,000
11141-16-5	Aroclor 1232	BRL	ug/Kg	7,900,000
53469-21-9	Aroclor 1242	BRL	ug/Kg	7,900,000
12672-29-6	Aroclor 1248	9,900,000 1C (8100000)*	ug/Kg	7,900,000
11097-69-1	Aroclor 1254	BRL	ug/Kg	7,900,000
11096-82-5	Aroclor 1260	BRL	ug/Kg	7,900,000
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	7,900,000
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	7,900,000

QC Surrogate Compound				Recovery	QC Limits
First	Tetrachloro-m-xylene	26	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	26	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	26	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	26	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID:

112214

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-39

QC Batch ID: Instrument 1D:

PB-3491-X

Sampled: Received: Extracted: 06-21-10 00:00 06-21-10 19:40

Sample Weight: Final Volume:

GC-11 Agilent 6890 2.4 g

Cleaned Up: Analyzed:

07-01-10 20:00 07-01-10 14:00

Percent Solids: Dilution Eactor 1 mŁ n/a

Analyst:

07-08-10 15:58

CRL

	Concentration	Notes	Units
U		Dilution Lactor.	

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	500
11104-28-2	Aroclor 1221	BRL	ug/Kg	500
11141-16-5	Aroclor 1232	BRL	ug/Kg	500
53469-21-9	Aroclor 1242	BRL	ug/Kg	500
12672-29-6	Aroclor 1248	4,400 1C (2900)*	ug/Kg	500
11097-69-1	Aroclor 1254	BRL	ug/Kg	500
11096-82-5	Aroclor 1260	BRL	ug/Kg	500
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	500
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	500

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	82	61	74 %	30 - 150 %
Column	Decachlorobiphenyl	82	87	105 %	30 - 150 %
Second	Tetrachloro-m-xylene	82	57	69 %	30 - 150 %
Column	Decachlorobiphenyl	82	84	102 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column. 1C



Field ID:

112215

Matrix:

Solid Plastic Bag

Project:

17228

Container:

C I

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-40

QC Batch ID: Instrument ID:

PB-3491-X GC-11 Agilent 6890

Sampled: Received: 06-21-10 00:00 06-21-10 19:40

Sample Weight:

0.32 g

Extracted: Cleaned Up: 07-01-10 19:40 07-01-10 20:00 07-01-10 14:00

Final Volume: Percent Solids: 1 mL n/a

1

Analyzed:

07-01-10 14:00 07-08-10 16:21

Dilution Factor:

Analyst:

CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	3,800
11104-28-2	Aroclor 1221	BRL	ug/Kg	3,800
11141-16-5	Aroclor 1232	BRL	ug/Kg	3,800
53469-21-9	Aroclor 1242	BRL	ug/Kg	3,800
12672-29-6	Aroclor 1248	7,400 2C (6100)*	ug/Kg	3,800
11097-69-1	Aroclor 1254	BRL	ug/Kg	3,800
11096-82-5	Aroclor 1260	BRL	ug/Kg	3,800
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	3,800
11100-14-4	Aroclor 1268 T	BRI	ue/Ke	3.800

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	620	480	76 %	30 - 150 %
Column	Decachlorobiphenyl	620	810	131 %	30 - 150 %
Second	Tetrachloro-m -xylene	620	470	75 %	30 - 150 %
Column	Decachlorobiphenyl	620	680	108 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:

112216

Matrix:

Solid

Project:

17228

Container:

Plastic Bag

Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

134157-41

QC Batch ID: Instrument ID:

PB-3491-X

Sampled: Received: Extracted: 06-21-10 00:00 06-21-10 19:40 07-01-10 20:00

Sample Weight: Final Volume: GC-11 Agilent 6890 5 g

Cleaned Up: Analyzed: 07-01-10 14:00 07-08-10 18:42

Final Volume: Percent Solids: Dilution Factor:

1 mL n/a

Analyst:

CRL

CAS Number	Analyte	Concentration	Concentration Notes		Reporting Limit		
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL		ug/Kg	240		
11141-16-5	Aroclor 1232	BRL		ug/Kg	240		
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	360	1C (290)*	ug/Kg	240		
11097-69-1	Aroclor 1254	620	1C (550)*	ug/Kg	240		
11096-82-5	Aroclor 1260	BRL	BRL				
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	240			
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	240			

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	40	18	45 %	30 - 150 %
Column	Decachlorobiphenyl	40	34	85 %	30 - 150 %
Second	Tetrachloro-m-xylene	40	16	40 %	30 - 150 %
Column	Decachlorobiphenyl	40	34	85 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.

Confirmatory column quantification.

1C Concentration reported from first column.



Field ID:

112217 17228

Matrix: Container: Solid Plastic Bag

Project: Client:

Environmental Health & Engineering, Inc.

Preservation:

Cool

Laboratory ID:

QC Batch ID:

PB-3491-X

Sampled:

134157-42 06-21-10 00:00

Instrument ID: Sample Weight: GC-11 Agilent 6890

Received: Extracted: Cleaned Up: 06-21-10 19:40 07-01-10 20:00 07-01-10 14:00

Final Volume:

4.2 g 1 mL

n/a

1

Analyzed:

07-08-10 19:06

Percent Solids: Dilution Factor:

Analyst: CRL

CAS Number	Analyte	Concentration Notes		Units	Reporting Limit	
12674-11-2	Aroclor 1016	BRL		ug/Kg	280	
11104-28-2	Aroclor 1221	BRL		ug/Kg	280	
11141-16-5	Aroclor 1232	BRL	BRL			
53469-21-9	Aroclor 1242	BRL	ug/Kg	280		
12672-29-6	Aroclor 1248	880	(C (610)*	ug/Kg	280	
11097-69-1	Aroclor 1254	BRL		ug/Kg	280	
11096-82-5	Aroclor 1260	BRI.	ug/Kg	280		
37324-23-5	Aroclor 1262	BRL	ug/Kg	280		
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	280		

QC Surrogate Compound		urrogate Compound Spiked Measured		Recovery	QC Limits	
First	Tetrachloro-m-xylene	47	21	44 %	30 - 150 %	
Column	Decachlorobiphenyl	47	23	49 %	30 - 150 %	
Second	Tetrachloro-m-xylene	47	18	38 %	30 - 150 %	
Column	Decachlorobiphenyl	47	19	40 %	30 - 150 %	

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- Concentration reported from first column.



112218 Field ID: Solid Matrix: 17228 Plastic Bag Container: Project: Environmental Health & Engineering, Inc. Client: Preservation: Cool 134157-43 QC Batch ID: PB-3491-X Laboratory ID: Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 9.6 g Extracted: 07-01-10 20:00 Final Volume: 1 mL 07-01-10 14:00 Cleaned Up: Percent Solids: n/a 07-08-10 10:27 Analyzed: Dilution Factor: 200 **CRL**

CAS Number	Analyte	Concentration					
12674-11-2	Aroclor 1016	BRL	BRL				
11104-28-2	Aroclor 1221	BRL		ug/Kg	25,000		
11141-16-5	Aroclor 1232	BRL		u g/K g	25,000		
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		u g/Kg	25,000		
11097-69-1	Aroclor 1254	190,000	2C (170000)	u g/K g	25,000		
11096-82-5	Aroclor 1260	BRL		ug/Kg	25,000		
37324-23-5	Aroclor 1262 [†]	BRL	u g/K g	25,000			
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	25,000		

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	21	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	21	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	21	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	21	n/a	d	30 - 150 %

Method Reference:

Analyst:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRI. Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Field ID: Project: 112219

Matrix:

17228

Environmental Health & Engineering, Inc.

Container:

Solid Plastic Bag

Client:

Preservation:

Cool

Laboratory ID:

134157-44

QC Batch ID:

PB-3491-X

Sampled:

06-21-10 00:00

Instrument ID: Sample Weight:

GC-11 Agilent 6890

Received: Extracted: Cleaned Up: 06-21-10 19:40 07-01-10 20:00 07-01-10 14:00

07-08-10 10:51

Final Volume:
Percent Solids:

2 g 1 mL n/a

Analyzed: Analyst:

CRL

Dilution Factor:	1000

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit		
12674-11-2	Aroclor 1016	BRL		ug/Kg	590,000		
11104-28-2	Aroclor 1221	BRL		ug/Kg	590,000		
11141-16-5	Aroclor 1232	BRL		ug/Kg	590,000		
53469-21-9	Aroclor 1242	BRL	BRL				
12672-29-6	Aroclor 1248	BRL		ug/Kg	590,000		
11097-69-1	Aroclor 1254	4,000,000	2C (3600000)*	ug/Kg	590,000		
11096-82-5	Aroclor 1260	2,000,000	2,000,000 2C (1200000)*				
37324-23-5	Aroclor 1262 *	BRL	BRL				
11100-14-4	Aroclor 1268 [†]	BRL	BRL				

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m -xylene	99	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	99	n/a	d	30 - 150 %
Second	Tetrachloro-m -xylene	99	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	99	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 2C Concentration reported from second column.
- d Surrogate recovery not measurable due to required sample dilution.



Solid Field ID: 112220 Matrix: 17228 Plastic Bag Container: Project: Environmental Health & Engineering, Inc. Preservation: Cool Client: 134157-45 QC Batch ID: PB-3491-X Laboratory ID: Sampled: 06-21-10 00:00 Instrument ID: GC-11 Agilent 6890 Received: 06-21-10 19:40 Sample Weight: 3.2 g Extracted: 07-01-10 20:00 Final Volume: 1 ml Cleaned Up: 07-01-10 14:00 Percent Solids: n/a Analyzed: 07-08-10 11:14 Dilution Factor: 5 CRL Analyst:

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	1,900
11104-28-2	Aroclor 1221	BRL	ug/Kg	1,900
11141-16-5	Aroclor 1232	BRL	ug/Kg	1,900
53469-21-9	Aroclor 1242	BRL	ug/Kg	1,900
12672-29-6	Aroclor 1248	BRL	ug/Kg	1,900
11097-69-1	Aroclor 1254	6,800 2C (560	00)* ug/Kg	1,900
11096-82-5	Aroclor 1260	BRL	ug/Kg	1,900
37324-23-5	Aroclor 1262 †	BRL	ug/Kg	1,900
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	1,900

QC Surrogate	QC Surrogate Compound		Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	62	39	62 %	30 - 150 %
Column	Decachlorobiphenyl	62	48	77 %	30 - 150 %
Second	Tetrachloro-m -xylene	62	39	62 %	30 - 150 %
Column	Decachlorobiphenyl	62	76	122 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 2C Concentration reported from second column.



Field ID:112221Matrix:SolidProject:17228Container:Plastic BagClient:Environmental Health & Engineering, Inc.Preservation:Cool

 Laboratory ID:
 134157-46
 QC Batch ID:
 PB-3491-X

 Sampled:
 06-21-10 00:00
 Instrument ID:
 GC-11 Agilent 6890

06-21-10 19:40 Sample Weight: Received: 2.6 g Extracted: 07-01-10 20:00 Final Volume: 1 mL 07-01-10 14:00 Cleaned Up: Percent Solids: n/a 07-08-10 16:45 Dilution Factor: Analyzed: 1

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	470
11104-28-2	Aroclor 1221	BRL		ug/Kg	470
11141-16-5	Aroclor 1232	BRL		ug/Kg	470
53469-21-9	Aroclor 1242	BRL		ug/Kg	470
12672-29-6	Aroclor 1248	BRL	_	ug/Kg	470
11097-69-1	Aroclor 1254	2,900	1C (2600)*	ug/Kg	470
11096-82-5	Aroclor 1260	BRL		ug/Kg	470
37324-23-5	Aroclor 1262 [†]	BRL		ug/Kg	470
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	470

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	78	30	39 %	30 - 150 %
Column	Decachlorobiphenyl	78	63	82 %	30 - 150 %
Second	Tetrachloro-m-xylene	78	26	33 %	30 - 150 %
Column	Decachlorobiphenyl	78	59	76 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1995).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

- † Non-target analyte. Result is based on a single mid-range calibration standard.
- * Confirmatory column quantification.
- 1C Concentration reported from first column.



Field ID:

112222 17228

Matrix:

Solid

1 mL

n/a

10

Project: Client:

Environmental Health & Engineering, Inc.

Container: Preservation: Plastic Bag

Cool PB-3491-X

Laboratory ID: Sampled:

134157-47

QC Batch ID: Instrument ID:

GC-11 Agilent 6890

Received: Extracted: 06-21-10 00:00 06-21-10 19:40 07-01-10 20:00

Sample Weight: Final Volume:

26 g

Cleaned Up: Analyzed:

07-01-10 14:00 07-08-10 12:49

Percent Solids: Dilution Factor:

Analyst:	CR
maiyst:	•

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	460
11104-28-2	Aroclor 1221	BRL	ug/Kg	460
11141-16-5	Aroclor 1232	BRL	ug/Kg	460
53469-21-9	Aroclor 1242	BRL	ug/Kg	460
12672-29-6	Aroclor 1248	1,600 1C (1500)*	ug/Kg	460
11097-69-1	Aroclor 1254	BRL	ug/Kg	460
11096-82-5	Aroclor 1260	BRL	ug/Kg	460
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	460
11100-14-4	Aroclor 1268 [†]	BRL	ug/Kg	460

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	8	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	8	n/a	d	30 - 150 %
Second	Tetrachloro-m-xylene	8	n/a	d	30 - 150 %
Column	Decachlorobiphenyl	8	n/a	d	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Results are reported on an as received basis.

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
- Non-target analyte. Result is based on a single mid-range calibration standard.
- Confirmatory column quantification.
- 1C Concentration reported from first column.
- d Surrogate recovery not measurable due to required sample dilution.



Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA 8082

QC Batch ID:

PB-3468-X Soil

Matrix: Units:

ug/Kg

Instrument ID:

GC-11 Agilent 6890 Inst

Instrument ID:

D: GC-11 Agilent 6890 06-22-10 19:00

Extracted: Cleaned Up:

06-22-10 19:00 06-23-10 01:30 Extracted: Cleaned Up:

06-23-10 01:30

Analyzed:

06-25-10 01:30

Analyzed:

06-25-10 01:30

Analyst:

CRL

Analyst:

CRL

				LCS				LCS Duplicate							
CAS Number	Analyte	Spiked	iked Measured		Recovery		Spiked	Mea	sured	Rece	overy	RI	PD	QC Lin	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Cal	ist Col	2nd Col	1st Cal	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	130	150	81%	91%	170	170	190	101%	113%	22 %	22 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	190	200	113%	119%	170	200	210	120%	126%	6%	6%	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	overy				QC Limits
Tetrachloro-m-xylene	6.7	4.1	3.9	62%	59%	6.7	5.4	5.4	81%	81%	 30 - 150 %
Decachlorobiphenyl	6.7	8.8	9.6	133%	144%	6.7	9.1	9.9	137%	149%	 30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category: EPA Method 8082

QC Batch ID: PB-3468-X Soil

Instrument ID: Extracted:

GC-11 Agilent 6890 06-22-10 19:00

Cleaned Up: **06-23-10 01:30** Analyzed: **06-25-10 03:47**

Analyst: CRL

CAS Number	Analyte	Concentration Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL	ug/Kg	40
11104-28-2	Aroclor 1221	BRL	ug/Kg	40
11141-16-5	Aroclor 1232	BRL	ug/Kg	40
53469-21-9	Aroclor 1242	BRL	ug/Kg	40
12672-29-6	Aroclor 1248	.8RL	ug/Kg	40
11097-69-1	Aroclor 1254	BRL	ug/Kg	40
11096-82-5	Aroclor 1260	BRL	ug/Kg	40
37324-23-5	Aroclor 1262 [†]	BRL	ug/Kg	40
11100-14-4	Aroclor 1268 †	BRL	ug/Kg	40

QC Surrogate	e Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.8	73 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	8.6	129 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	5.2	78 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	9.5	143 %	30 - 150 %

Method Reference: Test M

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRI. Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category: **EPA 8082** QC Batch ID: **PB-3485-X**

Instrument ID: GC-11 Agilent 6890 Extracted: 06-30-10 00:30

CRL

Instrument ID: GC-11 Agilent 6890 Extracted: 06-30-10 00:30

Matrix: Soil
Units: ug/Kg

Extracted: **06-30-10 00:30** Cleaned Up: **07-01-10 21:30** Analyzed: **07-06-10 13:07**

Cleaned Up: **07-01-10 21:30**Analyzed: **07-06-10 13:31**

Analyst:

-10 13:07 Analyzed: Analyst:

CRL

				LCS				LCS Duplicate							
CAS Number	Analyte	Spiked	Spiked Measured		Recovery		Spiked	Mea	sured	Reco	oyery	RI	PD	QC Lir	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Col	2nd Col	1st Col	2nd Col	1st Col	2nd Cal	Spike	RPD
12674-11-2	Aroclor 1016	170	130	130	78%	79%	170	140	140	85%	83%	9 %	6%	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	140	150	87%	89%	170	150	150	88%	90%	2 %	1 %	40 - 140%	30 %

QC Surrogate Compound					Surro	gate Rec	overy				QC Limits
Tetrachloro-m -xylene	6.7	4.4	4.4	67%	66%	6.7	4.8	4.6	73%	69%	30 - 150 %
Decachlorobiphenyl	6.7	6.1	6.8	92%	102%	6.7	6.2	6.9	94%	104%	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.



Quality Control Report Method Blank

Category:

EPA Method 8082

QC Batch ID: Matrix: PB-3485-X

Soil

Instrument ID:

GC-11 Agilent 6890

Extracted:

06-30-10 00:30 07-01-10 21:30

Cleaned Up: Analyzed:

07-01-10 21:30 07-06-10 12:33

Analyst:

CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ид/Кд	40
11104-28-2	Aroclor 1221	BRL		ug/Kg	40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	40
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 †	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate	Compound	Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.7	71 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.3	95 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	4.5	67 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	6.8	102 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Quality Control Report Laboratory Control Samples

LCS

LCSD

Category:

EPA 8082

QC Batch ID: PB-3491-X

Instrument ID: Extracted: GC-11 Agilent 6890 07-01-10 20:00 Instrument ID: Extracted: GC-11 Agilent 6890 07-01-10 20:00

Matrix: Units: Soil ug/Kg Cleaned Up: 07-0: Analyzed: 07-0

07-03-10 14:00

Cleaned Up: 03
Analyzed: 03

07-01-10 20:00 07-03-10 14:00 07-06-10 14:41

Analyst:

07-06-10 14:18 CRL

Analyst:

CRL

		LCS					LCS Duplicate								
CAS Number	Analyte	Spiked	Mea	sured	Reco	very	Spiked	Mea	sured	Reco	very	RF	מי	QC Lin	nits
			1st Col	2nd Col	1st Col	2nd Col		1st Çol	2nd Col	1st Col	2nd Col	1st Col	2nd Col	Spike	RPD
12674-11-2	Aroclor 1016	170	70	71	42%	43%	170	61	62	37% q	37% q	14 %	14 %	40 - 140%	30 %
11096-82-5	Aroclor 1260	170	230	290	141% q	175% q	170	130	140	80%	86%	55 % q	68 % q	40 - 140%	30 %

QC Surrogate Compound		Surrogate Recovery								QC Limits		
Tetrachloro-m-xylene	6.7	4.3	4.1	65%	62%	6.7	4.6	4.4	69%	66%		30 - 150 %
Decachlorobiphenyl	6.7	8.1	6.7	121%	101%	6.7	6.9	7.1	104%	107%		30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.



Quality Control Report Method Blank

Category: EPA Method 8082

QC Batch ID: PB-3491-X Matrix: Soil

il

Instrument ID: Extracted: GC-11 Agilent 6890 07-01-10 20:00

Cleaned Up: **07-03-10 14:00**Analyzed: **07-06-10 13:54**

Analyst: CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/Kg	40
11104-28-2	Aroclor 1221	BRL	BRL		40
11141-16-5	Aroclor 1232	BRL		ug/Kg	40
53469-21-9	Aroclor 1242	BRL		ug/Kg	40
12672-29-6	Aroclor 1248	BRL		ug/Kg	40
11097-69-1	Aroclor 1254	BRL		ug/Kg	80
11096-82-5	Aroclor 1260	BRL		ug/Kg	40
37324-23-5	Aroclor 1262 T	BRL		ug/Kg	40
11100-14-4	Aroclor 1268 [†]	BRL		ug/Kg	40

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First	Tetrachloro-m-xylene	6.7	4.8	72 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.9	89 %	30 - 150 %
Second	Tetrachloro-m-xylene	6.7	4.6	69 %	30 - 150 %
Column	Decachlorobiphenyl	6.7	5.8	88 %	30 - 150 %

Method Reference:

Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Sample extraction performed by EPA Method 3540C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations:

RL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

† Non-target analyte. Result is based on a single mid-range calibration standard.



Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

co	ΝN	NEC	CTI	Cι	JΤ

Department of Health Services, PH-0586

Potable Water, Wastewater, Solid Waste and Soil

http://www.ct.gov/dph/lib/dph/environmental health/environmental laboratories/pdf/Out State.pdf

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Potable Water and Non-Potable Water

http://public.dep.state.ma.us/labcert/labcert.aspx

Department of Labor,
Division of Occupational Safety, AA000195

http://www.mass.gov/dos/forms/la-rpt list aa.pdf

Asbestos Analytical Services, Class A

NEW HAMPSHIRE

Department of Environmental Services, 202708

Potable Water, Non-Potable Water, Solid and Chemical Materials

NEW YORK

Department of Health, 11754

http://www.wadsworth.org/labcert/elap/comm.html

Potable Water, Non-Potable Water, Solid and Hazardous Waste

RHODE ISLAND

Department of Health,

Division of Laboratories, LAO00054

http://www4.egov.nh.gov/DES/NHELAP

http://www.health.ri.gov/labs/outofstatelabs.pdf

Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921

Foreign soil import permit

VERMONT

Department of Health, VT-87643

http://healthvermont.gov/enviro/ph_lab/water_test.aspx#cert

Potable Water



Certifications and Approvals

MASSACHUSETTS Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Potable Water (Drinking Water)		Non-Potable Water (Wastewater)	
Analyte	Method	Analyte	Method
1,2-Dibromo-3-Chloropropane	EPA 504.1	Antimony	EPA 200.7
1,2-Dibromoethane	EPA 504.1	Antimony	EPA 200.8
Alkalinity, Total	SM 2320-B	Arsenic	EPA 200.7
Antimony	EPA 200.8	Arsenic	EPA 200.8
Arsenic	EPA 200.8	Beryllium	EPA 200.7
Barium	EPA 200.7	Beryllium	EPA 200.8
Barium	EPA 200.8	Beta-BHC	EPA 608
Beryllium	EPA 200.7	Biochemical Oxygen Demand	SM 5210-B
Beryllium	EPA 200.8	Cadmium	EPA 200.7
Cadmium	EPA 200.7	Cadmium	EPA 200.8
Cadmium	EPA 200.8	Calcium	EPA 200.7
Calcium	FPA 200.7	Chemical Oxygen Demand	SM 5220-D
Chlorine, Residual Free	SM 4500-CL-G	Chlordane	EPA 608
Chromium	EPA 200.7	Chloride	EPA 300.0
Copper	EPA 200.7	Chlorine, Total Residual	SM 4500-CL-G
Copper	EPA 200.8	Chromium	EPA 200.7
Cyanide, Total	Lachat 10-204-00-1-A	Chromium	EPA 200.8
E. Coli (Treatment and Distribution)	Enz. Sub. SM 9223	Cobalt	EPA 200.7
E. Coli (Treatment and Distribution)	NA-MUG SM 9222-G	Cobalt	EPA 200.8
Fecal Coliform (Source Water)	MF SM 9222-D	Copper	EPA 200.7
Fluoride	EPA 300.0	Copper	EPA 200.8
Fluoride	SM 4500-F-C	Cyanide, Total	Lachat 10-204-00-1-A
Heterotrophic Plate Count	SM 9215-B	DDD	EPA 608
Lead	EPA 200.8	DDE	EPA 608
Mercury	EPA 245.1	D DT	EPA 608
Nickel	EPA 200.7	Delta-BHC	EPA 608
Nickel	EPA 200.8	Dieldrin	EPA 608
Nitrate-N	EPA 300.0	Endosulfan I	EPA 608
Nitrate-N	Lachat 10-107-04-1-C	Endosulfan II	EPA 608
Nitrite-N	EPA 300.0	Endosulfan Sulfate	EPA 608
Nitrite-N	Lachat 10-107-04-1-C	Endrin	EPA 608
рН	SM 4500-H-B	Endrin Aldehyde	EPA 608
Selenium	EPA 200.8	Fluoride	EPA 300.0
Silver	EPA 200.7	Gamma-BHC	EPA 608
Silver	EPA 200.8	Hardness (CaCO3), Total	EPA 200.7
Sodium	EPA 200.7	Hardness (CaCO3), Total	SM 2340-B
Sulfate	EPA 300.0	Heptachlor	EPA 608
Thallium	EPA 200.8	Heptachlor Epoxide	EPA 608
Total Coliform (Treatment and Distribution)	Enz. Sub. SM 9223	Iron	EPA 200.7
Total Coliform (Treatment and Distribution)	MF SM 9222-B	Kjeldahl-N	Lachat 10-107-06-02-D
Total Dissolved Solids	SM 2540-C	Lead	EPA 200.7
Trihalomethanes	EPA 524.2	Magnesium	EPA 200.7
Turbidity	SM 2130-B	Manganese	EPA 200.7
Volatile Organic Compounds	EPA 524.2	Manganese	FPA 200.8
		Mercury	EPA 245.1
Non-Potable Water (Wastewater)		Molybdenum	EPA 200.7
Analyte	Method	Molybdenum	EPA 200.8
,	···ctiou	Nickel	EPA 200.7
4117	FB + 600		
Aldrin	EPA 608	Nickel	EPA 200.8
Alkalinity, Total	SM 2320-B	Nitrate-N	EPA 300.0
Alpha-BHC	EPA 608	Nitrate-N	Lachat 10-107-04-1-C
Aluminum	EPA 200.7	Non-Filterable Residue	SM 2540-D
Ammonia-N	Lachat 10-107-06-1-B	Oil and Grease	EPA 1664



Certifications and Approvals

MASSACHUSETTS

Department of Environmental Protection, M-MA-103

Groundwater Analytical maintains MassDEP environmental laboratory certification for only the methods and analytes listed below. Analyses for certified analytes are conducted in accordance with MassDEP certification standards, except as may be specifically noted in the project narrative.

Non-Potable Water (Wastewater)	
Analyte	Method
Orthophosphate	Lachat 10-115-01-1-A
рН	SM 4500-H-B
Phenolics, Total	EPA 420.4
Phenolics, Total	Lachat 10-210-00-1-B
Phosphorus, Total	Lachat 10-115-01-1-C
Phosphorus, Total	SM 4500-P-B,E
Polychlorinated Biphenyls (Oil)	EPA 600/4-81-045
Polychlorinated Biphenyls (Water)	EPA 608
Potassium	EPA 200.7
Selenium	EPA 200.7
Selenium	EPA 200.8
Silver	EPA 200.7
Sodium	EPA 200.7
Specific Conductivity	SM 2510-B
Strontium	EPA 200.7
Sulfate	EPA 300.0
SVOC-Acid Extractables	EPA 625
SVOC-Base/Neutral Extractables	EPA 625
Thallium	EPA 200.7
Thallium	EPA 200.8
Titanium	EPA 200.7
Total Dissolved Solids	SM 2540-C
Total Organic Carbon	SM 5310-B
Toxaphene	EPA 608
Vanadium	EPA 200.7
Vanadium	EPA 200.8
Volatile Aromatics	EPA 602
Volatile Aromatics	EPA 624
Volatile Halocarbons	EPA 624
Zinc	EPA 200.7
Zinc	EPA 200.8

ATTACHMENT C AIR SAMPLE LABORATORY REPORT



ANALYTICAL REPORT

Lab Number:

L1011335

Client:

Environmental Health & Engineering Inc.

117 Fourth Ave

Needham, MA 02494

ATTN:

Matt Fragala

Phone:

(781) 247-4300

Project Name:

Not Specified

Project Number:

17228

Report Date:

08/09/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.



Project Name: Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

08/09/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1011335-01	105511	Not Specified	07/22/10 00:00
L1011335-02	105512	Not Specified	07/22/10 00:00
L1011335-03	105513	Not Specified	07/22/10 00:00
L1011335-04	105514	Not Specified	07/22/10 00:00
L1011335-05	105515	Not Specified	07/22/10 00:00
L1011335-06	105516	Not Specified	07/22/10 00:00
L1011335-07	105517	Not Specified	07/22/10 00:00
L1011335-08	105518	Not Specified	07/22/10 00:00
L1011335-09	105519	Not Specified	07/22/10 00:00
L1011335-10	105520	Not Specified	07/22/10 00:00
L1011335-11	105521	Not Specified	07/22/10 00:00
L1011335-12	105522	Not Specified	07/22/10 00:00
L1011335-13	105523	Not Specified	07/22/10 00:00
L1011335-14	105524	Not Specified	07/22/10 00:00
L1011335-15	105525	Not Specified	07/22/10 00:00
L1011335-16	105526	Not Specified	07/22/10 00:00
L1011335-17	105527	Not Specified	07/22/10 00:00
L1011335-18	105528	Not Specified	07/22/10 00:00
L1011335-19	105529	Not Specified	07/22/10 00:00
L1011335-20	105530	Not Specified	07/22/10 00:00
L1011335-21	105531	Not Specified	07/22/10 00:00
L1011335-22	105532	Not Specified	07/22/10 00:00
L1011335-23	105533	Not Specified	07/22/10 00:00
L1011335-24	105534	Not Specified	07/22/10 00:00
L1011335-25	105535	Not Specified	07/22/10 00:00
L1011335-26	105536	Not Specified	07/22/10 00:00
L1011335-27	95349	Not Specified	07/22/10 00:00
L1011335-28	95350	Not Specified	07/22/10 00:00



Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

08/09/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information,	please contact Client	t Services at 800-624-9220	

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were transported to the laboratory in a cooler with ice. The client was notified of the exceedance, and all requested analyses were performed.

PCB Homologs by GC/MS-SIM

L1011335-01 through -28 were analyzed at dilution due to the sample matrix.

The surrogate recoveries for L1011335-20 were above the acceptance criteria for Cl3-BZ#19-C13 (230%) and Cl8-BZ#202-C13 (247%); however, re-extraction could not be performed due to sample matrix. The results of the original analysis are reported; however, all associated compounds are considered to have a potentially high bias.



Project Name:

Not Specified

Project Number: 17228 Lab Number:

L1011335

Report Date:

08/09/10

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

With M. Whin Kathleen O'Brien

Title: Technical Director/Representative

Date: 08/09/10



ORGANICS



SEMIVOLATILES



L1011335

07/22/10 00:00

Not Specified

07/28/10 15:17

EPA 3540C

07/23/10

Project Name: Not Specified Lab Number:

D

Report Date: **Project Number:** 17228 08/09/10

SAMPLE RESULTS

Lab ID: L1011335-01 Client ID: 105511 Sample Location: Not Specified Air Cartridge Matrix: Analytical Method: 1,8270C-SIM Analytical Date: 08/06/10 02:36

Analyst: JS **Extraction Method: Extraction Date:** Cleanup Method1:

Date Collected:

Date Received:

Field Prep:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab					
Monochlorobiphenyls	11.0		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	7.90		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND	As a service of All Samuel Samuel State of State	ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	18.9		ng/cart	5.00	2.50	2

	Acceptance					
Surrogate	% Recovery	Qualifier	Criteria			
Cl3-BZ#19-C13	100		50-125			
CI8-BZ#202-C13	95		50-125			

Project Name:

Project Number:

Not Specified

17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

Lab ID:

L1011335-02

D

Client ID:

Matrix:

105512

Sample Location:

Not Specified Air Cartridge

Analytical Method: Analytical Date:

1,8270C-SIM 08/06/10 03:43

Analyst:

JS

Date Collected:

07/22/10 00:00

Date Received:

07/23/10

Field Prep:

Not Specified EPA 3540C

Extraction Date:

07/28/10 15:17

Cleanup Method1:

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Ma	ansfield Lab					
Monochlorobiphenyls	15.8		ng/cart	5.00	2.50	2
Dichlorobiphenyls .	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	2.5	J	ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	2.9	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND	- had be have the construction of the construc	ng/cart	5.00	2.50	2
Total Homologs	21.2		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	92		50-125	
CI8-BZ#202-C13	87		50-125	



L1011335

07/22/10 00:00

Project Name: Lab Number: Not Specified

Project Number: Report Date: 17228

08/09/10

SAMPLE RESULTS

Lab ID: L1011335-03 D

Client ID: 105513 Sample Location: Not Specified Matrix: Air Cartridge Analytical Method: 1,8270C-SIM 08/06/10 04:50 Analytical Date:

Analyst: JS Date Received: 07/23/10 Field Prep: Not Specified

Date Collected:

Extraction Method: **EPA 3540C Extraction Date:** 07/28/10 15:17

Cleanup Method1:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - M	ansfield Lab			The second secon		
Monochiorobiphenyls	4	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	2.7	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	3.9	J	ng/cart	5.00	2.50	2
Hexachlorobiphenyls	42,6		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	24.3		ng/cart	5.0 0	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	77.5		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	90		50-125	
CI8-BZ#202-C13	8 5		50-125	



Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-04

Date Collected:

07/22/10 00:00

Client ID:

105514

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified

Matrix:

Air Cartridge

Extraction Method: Extraction Date:

EPA 3540C 07/28/10 15:17

Analytical Method: Analytical Date: 1,8270C-SIM 08/06/10 05:57

Cleanup Method1:

07/28/10 15:17

Analyst:

JS

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Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Ma	nsfield Lab					
Monochlorobiphenyls	4	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	4	J	ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachtorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	8.00	78.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Acce % Recovery Qualifier Crit			
Cl3-BZ#19-C13	85		50-125		
CI8-BZ#202-C13	85		50-125		

Project Name: Not Specified Lab Number: £1011335

Project Number: 47339

Project Number: 47339

Project Number: 17228 Report Date:

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08/09/10

SAMPLE RESULTS

Lab ID: Client ID: L1011335-05

Date Collected:

Sample Location:

105515 Not Specified Air Cartridge 1,8270C-SIM

Analytical Method: Analytical Date:

08/06/10 07:04

Analyst:

Matrix:

JS

Date Received:

07/22/10 00:00

Date Received: Field Prep:

07/23/10 Not Specified EPA 3540C

Extraction Method: Extraction Date:

07/28/10 15:17

Cleanup Method1:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Mans	sfield Lab					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	4.3	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	N D		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND	DESCRIPTION OF THE PROPERTY OF	ng/cart	5.00	2.50	2
Total Homologs	4.3	J	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance fier Criteria		
Ci3-BZ#19-C13	89		50-125		
CI8-BZ#202-C13	81		50-125		



Project Name: Not Specified

Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-06

Date Collected:

07/22/10 00:00

Client ID:

105516

Date Received:

07/23/10

Sample Location: Matrix:

Not Specified Air Cartridge

Field Prep: Extraction Method: Not Specified EPA 3540C

Analytical Method:

1,8270C-SIM

Extraction Date:

07/28/10 15:17

Analytical Date: Analyst: 08/06/10 08:11

Cleanup Method1:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - M	ansfield Lab	THE RESERVE OF THE PERSON OF T	Salagrania memberaha ki kacamatan kacamatan kacamatan kacamatan kacamatan kacamatan kacamatan kacamatan kacama	y mining property on the mining of the		
Monochlorobiphenyls	3.3	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND	4 - 24 - 24 - 24 - 24 - 24 - 24 - 24 -	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	3.3	J	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	88		50-125	
CI8-BZ#202-C13	80		50-125	

Project Name: Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-07

Date Collected:

07/22/10 00:00

Client ID:

105517

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified EPA 3540C

Matrix: Analytical Method: Air Cartridge 1,8270C-SIM

Extraction Method: Extraction Date:

07/28/10 15:17

Analytical Date:

08/06/10 09:18

Cleanup Method1:

07/28/10 15:1

Analyst:

JS

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Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab					***
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND	-	ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND	C PARTICIPATION TO A CONTROL OF THE	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
CI3-BZ#19-C13	87		50-125	
CI8-BZ#202-C13	84		50-125	



Project Name:

Not Specified

Project Number:

17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

Lab ID:

L1011335-08

D

Date Collected: Date Received: 07/22/10 00:00

Client ID:

105518

Field Prep:

07/23/10 Not Specified

Sample Location: Matrix:

Not Specified Air Cartridge

Extraction Method:

EPA 3540C

Analytical Method: Analytical Date:

1,8270C-SIM 08/06/10 10:24 **Extraction Date:**

07/28/10 15:17

Analyst:

Cleanup Method1:

JS

Parameter	Result	Qualifler	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - M	lansfield Lab				, , , , , , , , , , , , , , , , , , ,	entroppeda de la
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND	THE PROPERTY OF THE PARTY OF TH	ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND	a service and the service and	ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	82		50-125	
Cl8-BZ#202-C13	78		50-125	

Project Name: Not Specified Lab Number:

L1011335

Project Number: 17228 Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-09

Date Collected:

07/22/10 00:00

Client ID:

105519

Date Received:

07/23/10

Sample Location: Matrix:

Not Specified

Field Prep:

Not Specified EPA 3540C

Analytical Method:

Air Cartridge 1,8270C-SIM Extraction Method:

Extraction Date: ----

07/28/10 15:17

Analytical Date: 08/06/10 11:31 Analyst:

Cleanup Method1:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab					
Monochlorobiphenyls	8.30		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	2.9	J	ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	3.4	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.0 0	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.0 0	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	14.6		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Ci3-BZ#19-C13	92		50-125	
CI8-BZ#202-C13	83		50-125	



L1011335

07/22/10 00:00

Not Specified

07/28/10 15:17

EPA 3540C

07/23/10

Project Name: Not Specified

Lab Number:

Project Number: 17228 Report Date: 08/09/10

D

SAMPLE RESULTS

Lab ID: L1011335-10

Client ID: 105520 Sample Location: Not Specified Matrix: Air Cartridge Analytical Method: 1,8270C-SIM

Analytical Date: 08/06/10 14:42

Analyst: JS

Cleanup Method2:

Extraction Method:

Cleanup Method1:

Date Collected:

Date Received: Field Prep:

Extraction Date:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Ma	nsfield Lab					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	6.20		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	101		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	83.9		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	28.7		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND	17 1 200 al 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ng/cart	5.00	2.50	2
Total Homologs	219		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criterla	
Cl3-BZ#19-C13	89		50-125	
CI8-BZ#202-C13	92		50-125	

Project Name: Not Specified

Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-11

Date Collected:

07/22/10 00:00

Client ID:

105521

Date Received:

07/23/10

Sample Location: Matrix: Not Specified

Field Prep: Extraction Method:

Not Specified EPA 3540C

Analytical Method:

Air Cartridge 1,8270C-SIM

Extraction Date:

07/28/10 15:17

Analytical Date:

08/06/10 15:49

Cleanup Method1:

- - **-** -

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - I	Mansfield Lab					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	48.7		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	5 3.5		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	3.1	J	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	105		ng/cart	5.00	2.50	2

	Acceptance						
Surrogate	% Recovery	Qualifier	Criteria				
Cl3-BZ#19-C13	79		50-125				
CI8-BZ#202-C13	77		50-125				

Project Name:

Not Specified

Project Number:

17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

Lab ID:

L1011335-12

D

Client ID:

105522

Sample Location: Matrix:

Not Specified Air Cartridge 1,8270C-SIM

Analytical Method: **Analytical Date:**

08/06/10 16:56

Analyst:

JS

Date Collected:

07/22/10 00:00

Date Received:

07/23/10

Field Prep:

Not Specified

Extraction Date:

EPA 3540C 07/28/10 15:19

Cleanup Method1:

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - I	Mansfield Lab				to accompany one too.	ar also part region con trot trock is used as a former in the
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	21.1		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	9.40		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND	APPROXIMATE AND ADDRESS OF THE APPROXIMATE ADDRESS OF THE APPROXIMATE AND ADDRESS OF THE APPROXIMATE	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND	A COLOR DE LA COLO	ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND	NET I SALET THE REPORT OF THE RESERVE OF THE RESERV	ng/cart	5.00	2.50	2
Total Homologs	30.5		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	86		50-125	
CI8-BZ#202-C13	81		50-125	



Project Name: Not Specified

Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-13

Date Collected:

07/22/10 00:00

Client ID:

105523

Date Received:

07/23/10

Sample Location: Matrix:

Not Specified

Field Prep:

Not Specified EPA 3540C

Analytical Method:

Air Cartridge 1,8270C-SIM Extraction Method: Extraction Date:

07/28/10 15:19

Analytical Date:

08/06/10 18:03

Cleanup Method1:

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - I	Mansfield Lab					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	21.0		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	8.60		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND	77900 04 100 100 100 100 100 100 100 100 10	ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decach!orobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	29.6		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	86		50-125	
CI8-BZ#202-C13	85		50-125	

Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-14

Date Collected:

07/22/10 00:00

Client ID:

105524

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified

Matrix: Analytical Method: Air Cartridge

Extraction Date:

EPA 3540C

Analytical Date:

1,8270C-SIM 08/06/10 19:10

Cleanup Method1:

Extraction Method:

07/28/10 15:19

Analyst:

JS

- - - -

Parameter	Result	Qualifler	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - N	Mansfield Lab					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	9.40	PLAN DEPARTMENT OF THE PROPERTY OF THE PROPERT	ng/cart	5.00	2.50	2
Pentachlorobiphenyis	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	2.7	J	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	12.1		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	91		50-125	
CI8-BZ#202-C13	85		50-125	

Lab Number: **Project Name:** Not Specified L1011335

Report Date: **Project Number:** 17228 08/09/10

SAMPLE RESULTS

D Lab ID: L1011335-15

Client ID: 105525 Sample Location: Not Specified Matrix: Air Cartridge Analytical Method: 1,8270C-SIM Analytical Date: 08/06/10 20:17

Analyst: JS

Date Collected: Date Received: 07/22/10 00:00

07/23/10 Field Prep: Not Specified Extraction Method: **EPA 3540C**

Extraction Date:

07/28/10 15:19

Cleanup Method1:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - Ma	nsfield Lab				-	e nyaéta an agagan a nasa a
Monochlorobiphenyls	3.2	J	ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND	A COLUMN TO STATE	ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	3.1	J	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	3.3	J	ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	9.60		ng/cart	5.00	2.50	2

	Acceptance					
Surrogate	% Recovery	Qualifier	Criteria			
Cl3-BZ#19-C13	92	 	50-125			
CI8-BZ#202-C13	87		50-125			

Project Name: Not Specified

17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-16

Date Collected:

07/22/10 00:00

Client ID:

105526

Date Received: Field Prep:

07/23/10

Sample Location: Matrix:

Project Number:

Not Specified Air Cartridge

Extraction Method:

Not Specified EPA 3540C

Analytical Method:

1,8270C-SIM 08/06/10 21:24

Extraction Date:

07/28/10 15:19

Analytical Date: Analyst:

JS

Cleanup Method1:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab	·		A		THE REPORT OF THE PARTY OF THE
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	21.5		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	10.7		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND	A CONTRACTOR OF THE CASE AND ADDRESS OF THE CONTRACTOR	ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND	/	ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND .		ng/cart	5.00	2.50	2
Total Homologs	32.2		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	81	,	50-125	
CI8-BZ#202-C13	77		50-125	

Project Name: Not Specified Lab Number:

Project Number: 17228 Report Date: 08/09/10

SAMPLE RESULTS

Lab ID: L1011335-17 D

Client ID: 105527
Sample Location: Not Specified
Matrix: Air Cartridge
Analytical Method: 1,8270C-SIM
Analytical Date: 08/06/10 22:31

Analyst: JS

Date Collected: 07/22/10 00:00
Date Received: 07/23/10
Field Prep: Not Specified
Extraction Method: EPA 3540C

Extraction Date:

07/28/10 15:19

L1011335

Cleanup Method1: ----

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab			manage and a second sec		
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	23.3		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachiorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	23.3		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	91		50-125	
Cl8-BZ#202-C13	85		5 0- 1 25	



Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-18

Date Collected:

07/22/10 00:00

Client ID:

105528

Date Received:

07/23/10

Sample Location: Matrix:

Not Specified Air Cartridge

Field Prep: **Extraction Method:** Not Specified EPA 3540C

Analytical Method:

1,8270C-SIM

Extraction Date:

07/28/10 15:19

Analytical Date:

08/06/10 23:37

Cleanup Method1:

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Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - N	Mansfield Lab	in an april di dadi in indi				
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND	THE APPR ASSISTED	ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachiorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	92		50-125	
CI8-BZ#202-C13	89		50-125	

Project Name: Not Specified

Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-19

Date Collected:

07/22/10 00:00

Client ID:

105529

Date Received:

07/23/10

Sample Location: Matrix:

Not Specified Air Cartridge

Field Prep: Extraction Method: Not Specified EPA 3540C

Analytical Method: Analytical Date: 1,8270C-SIM 08/07/10 06:08 Extraction Date:

07/30/10 12:02

Analyst:

JS

Cleanup Method1:

Parameter	Result	Qualifier	Units	RL.	MDL.	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab		· B. 112			
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	49.7		ng/cart	5.00	2.50	2
Trichlorobiphenyls	392		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	371		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	241		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	561		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	613		ng/cart	5.00	2.50	2
Octachlorobiphenyls	138		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	6.50		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	2370		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	84		50-125	
CI8-BZ#202-C13	75		50-125	



Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-20

Date Collected:

07/22/10 00:00

Client ID:

105530

Date Received:

07/23/10

Sample Location:

Not Specified

Matrix:

Not Specified Air Cartridge

Field Prep: **Extraction Method:**

EPA 3540C

Analytical Method:

1,8270C-SIM

Extraction Date:

07/30/10 12:02

Analytical Date:

08/07/10 07:15

Cleanup Method1:

- - - -

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - N	Mansfield Lab				· · · · · · · · · · · · · · · · · · ·	
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	10.1		ng/cart	5.00	2.50	2
Trichlorobiphenyls	152		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	118		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	54.4		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	79.6		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	36.7		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	451		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	230	Q	50-125	
CI8-BZ#202-C13	247	Q	50-125	



Project Name: Not Specified

Lab Number:

L1011335

Project Number: 17228 Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-22

Date Collected:

07/22/10 00:00

Client ID:

105532

Date Received:

07/23/10

Sample Location: Matrix:

Not Specified Air Cartridge

Field Prep: Extraction Method: Not Specified EPA 3540C

Analytical Method:

1,8270C-SIM

Extraction Date:

07/30/10 12:02

Analytical Date:

08/07/10 09:28

Cleanup Method1:

Analyst: JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - N	lansfield Lab				41 Amount out to come - Amount	
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	47.9		ng/cart	5.00	2.50	2
Trichlorobiphenyls	244		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	164		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	99.1		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	135		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	51.9		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND	Hittis i Madria and Arthum Hannada Hannada and Anna ang	ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	742		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	86		50-125	
CI8-BZ#202-C13	75		50-125	



Project Name: Project Number: Not Specified

17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-21

Date Collected:

07/22/10 00:00

Client ID:

105531

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified

Matrix: Analytical Method: Air Cartridge

Extraction Method:

EPA 3540C

Analytical Date:

1,8270C-SIM 08/07/10 08:22 **Extraction Date:** Cleanup Method1: 07/30/10 12:02

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - N	lansfield Lab					
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	9.00		ng/cart	5.00	2.50	2
Trichlorobiphenyls	139		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	106		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	47.1		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	53.6		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	14.3		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	369	and the second s	ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Ci3-BZ#19-C13	77		50-125	
CI8-BZ#202-C13	70		50-125	



Project Name: Not Specified

Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-23

Date Collected:

07/22/10 00:00

Client ID:

105533

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified EPA 3540C

Matrix: Analytical Method: Air Cartridge 1,8270C-SIM

Extraction Method: Extraction Date:

07/30/10 12:02

Analytical Date:

08/07/10 10:35

Cleanup Method1:

07/30/10 12:

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - N	/lansfield Lab					The second of the second of the second of
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	13.0		ng/cart	5.00	2.50	2
Trichlorobiphenyls	168		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	124		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	51.2		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	49.5		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	12.9		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	419		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	93		50-125	
CI8-BZ#202-C13	84		50-125	



Project Name: Project Number: Not Specified

17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-24

Date Collected:

07/22/10 00:00

Client ID:

105534

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified

Matrix:

Air Cartridge

Extraction Method: Extraction Date:

EPA 3540C 07/30/10 12:02

Analytical Method: Analytical Date:

1,8270C-SIM 08/07/10 11:42

Cleanup Method1:

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - M	lansfield Lab					
Monochlorobiphenyls	ND ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	79.4		ng/cart	5.00	2.50	2
Trichlorobiphenyls	443		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	159	to the state of th	ng/cart	5.00	2.50	2
Pentachlorobiphenyls	83.6		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	104		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	40.0		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	908		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	91		50-125	
CI8-BZ#202-C13	81		50-125	



Project Name: Not Specified Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-25

Date Collected:

07/22/10 00:00

Client ID:

105535

Date Received: Field Prep:

Extraction Date:

07/23/10

Sample Location:

Not Specified

Not Specified Extraction Method:

Matrix: Analytical Method: Air Cartridge 1,8270C-SIM **EPA 3540C**

Analytical Date:

08/07/10 12:49

07/30/10 12:02

Analyst:

JS

Cleanup Method1:

- - - -----

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab		· ·			
Monochiorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	20.5		ng/cart	5.00	2.50	2
Trichlorobiphenyls	157	Hara Francisco	ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	130		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	88.5		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	144		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	63.9		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	604		ng/cart	5.00	2.50	2

	Acceptance					
Surrogate	% Recovery	Qualifier	Criteria			
Cl3-BZ#19-C13	86	· · ·	50-125			
CI8-BZ#202-C13	77		50-125			



Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-26

Date Collected:

07/22/10 00:00

Client ID:

Matrix:

105536

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified EPA 3540C

Analytical Method:

Air Cartridge 1,8270C-SIM

Extraction Date:

07/30/10 12:02

Analytical Date:

08/07/10 13:56

Cleanup Method1:

Extraction Method:

07/30/10 12:

Analyst:

JS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab		ay a galagan mana a mana ana ana ana ana			
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentach(orobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	ND		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Acceptance y Qualifier Criteria		
Cl3-BZ#19-C13	88		50-125	
CI8-BZ#202-C13	82		50-125	

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. NELAP Accredited.

Non-Potable Water (<u>Inorganic Parameters</u>: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. <u>Organic Parameters</u>: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. NELAP Accredited via LA-DEQ.

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. NELAP Accredited.

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. <u>Organic Parameters</u>: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: 8270C: Biphenyl.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. NELAP Accredited.

Non-Potable Water (<u>Inorganic Parameters</u>: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. <u>Organic Parameters</u>: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. NELAP Accredited.

Non-Potable Water (<u>Inorganic Parameters</u>: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 <u>Organic Parameters</u>: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

228

Report Date:

08/09/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Project Name: Not Specified Lab

Lab Number: L1011335

Report Date: 08/09/10

Data Qualifiers

Project Number:

RE - Analytical results are from sample re-extraction.

17228

J -Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above one half the RL. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND Not detected at one half the reporting limit (RL) for the sample.

Report Format:

DU "J" Qualify to 1/2 the RDL



Project Name: Not

Not Specified

Lab Number:

L1011335

Project Number: 17228

Report Date:

08/09/10

GLOSSARY

Acronyms

EPA Environmental Protection Agency.

LCS Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

MDL • Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

 MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.

Report Format: DU "J" Qualify to 1/2 the RDL



Project Name: Not Specified

Project Number: 17228

Lab Number: L1011335

Report Date: 08/09/10

Container Information

Container ID Container Type

Cooler pH deg C Pres Seal Analysis(*)

L1011335-28A PUF Air Cartridge - High or Low A N/A 10 Y Absent A2-PCBHOMS-8270SIM()

Project Name: Not Specified Project Number: 17228

Lab Number: L1011335 **Report Date:** 08/09/10

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on:

NA

Cooler Information Custody Seal

Cooler

Α

Absent

Container Info	ormation			Temp			
Container ID	Container Type	Cooler	pН	deg C	Pres	Seal	Analysis(*)
L1011335-01A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-02A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-03A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-04A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-05A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-06A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-07A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-08A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-09A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-10A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-11A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-12A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-13A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-14A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-15A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-16A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-17A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-18A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-19A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-20A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-21A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-22A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-23A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-24A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-25A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-26A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()
L1011335-27A	PUF Air Cartridge - High or Low	Α	N/A	10	Υ	Absent	A2-PCBHOMS-8270SIM()

Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

Parameter	LCS %Recovery Qual	LCSD %Recovery		%Recovery Limits	RPD C	Qual RPD Limits
PCB Homologs by GC/MS-SIM - Mansfield La	b Associated sample(s)	: 19-28 Batch:	WG425287-2			
CI8-BZ#204/#200-CAL	94	•		40-140		30
CI6-BZ#156	70	-		40-140	•	30
CI6-BZ#157	81	-		40-140	•	30
CI7-BZ#180	82	•		40-140	-	30
CI8-BZ#201	90	-		40-140	-	30
CI7-BZ#170	88	-		40-140	•	30
Cl6-BZ#169	71	- -		40-140	-	30
CI9-BZ#208	88	-		40-140	-	30
CI7-BZ#189	. 74	-		40-140	-	30
CI8-BZ#195	89	-		40-140	•	30
Cl8-BZ#194	79	-		40-140	-	30
CI8-BZ#205	82	-	· · - · -	40-140	-	30
Cl9-BZ#206	81	-		40-140	-	30
Cl10-BZ#209	84	-		40-140	-	30

	LCS		LCSD		Acceptance	
Surrogate	%Recovery	Qual	%Recovery	Qual	Criteria	
Cl3-BZ#19-C13	90				50-125	
CI8-BZ#202-C13	82				50-125	



Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

ırameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual RPD Limits
CB Homologs by GC/MS-SIM	1 - Mansfield Lab Associated sample(s):	19-28 Batch:	WG425287-2		
CI4-BZ#81	90	-	40-140	-	30
CI6-BZ#151	92	-	40-140		30
Cl6-BZ#147/#149	89	<u></u>	40-140		30
Cl4-BZ#77	88	-	40-140	-	30
CI5-BZ#107/#123	88	<u> </u>	40-140	-	30
CI7-BZ#188	87	-	40-140	•	30
CI5-BZ#118	74	-	40-140	-	30
Ci6-BZ#146	93	-	40-140	•	30
CI5-BZ#114	74	-	40-140	-	30
Cl6-BZ#153	102	_	40-140		30
CI5-BZ#105	56	-	40-140	•	30
CI6-BZ#138	79	-	40-140	-	30
Cl6-BZ#129/#158	95	•	40-140	-	30
CI7-BZ#187	92	-	40-140	-	30
CI7-BZ#183	86	-	40-140	-	30
CI5-BZ#126	64	-	40-140	-	30
CI7-BZ#174	94	-	40-140	-	30
Cl6-BZ#128	91	-	40-140	-	30
Cl6-BZ#167	87	-	40-140		30
Cl8-BZ#202	101		40-140	<u>-</u>	30
Ci7-BZ#177	87	•	40-140	<u>-</u>	30



Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

arameter	LCS %Recovery Qual	LCSD %Recovery	9 Qual	%Recovery Limits	RPD	Qual	RPD Limits
CB Homologs by GC/MS-SIM -	Mansfield Lab Associated sample(s):	19-28 Batch:	WG425287-2				
CI4-BZ#50	93	-		40-140	-		30
Cl3-BZ#-31	91	- -		40-140	-		30
Cl3-BZ#28	97	-		40-140	-		30
Cl4-BZ#45	95			40-140	-		30
Cl4-BZ#52	96			40-140	-		30
Cl4-BZ#49	89	_	·	40-140	•		30
CI5-BZ#104	78	··		40-140	-		30
CI4-BZ#47	98			40-140	•		30
Cl4-BZ#44	100	-		40-140	-		30
Cl3-BZ#37	64	-		40-140	-		30
CI5-BZ#121/#95/#88	63	•		40-140	<u>.</u>		30
CI4-BZ#74	86	- -		40-140	-		30
CI6-BZ#155	84	•		40-140	•		30
C14-BZ#70		•		40-140	-		30
CI4-BZ#66	103	-		40-140	_		30
CI5-BZ#101/#90	80			40-140	•		30
CI4-BZ#56	100	-	· -	40-140	-		30
CI5-BZ#99	80	-	-	40-140	-		30
CI5-BZ#87/#111	65	- · - · -		40-140	· -		30
CI6-BZ#154	86			40-140	-		30
CI5-BZ#110	82			40-140	-		30



Project Name:

Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

Parameter	LCS %Recovery Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIN	M - Mansfield Lab Associated sample(s):	01-18 Batch:	WG424806-2	2			
Cl9-BZ#206	80	-		40-140	-		30
Cl10-BZ#209	. 84	-		40-140	-		30

Surrogate	LCS %Recovery Qu	LCSD al %Recovery	Qual	Acceptance Criteria
Cl3-BZ#19-C13	85			50-125
Cl8-BZ#202-C13	84			50-125

B Homologs by GC/MS-SIN	1 - Mansfield Lab Associated sample(s):	19-28 Batch: WG4	125287-2		
CI1-BZ#1	91	-	40-140	<u>-</u>	30
CL1-BZ#3	91	·	40-140	-	30
C12-BZ#4/#10	108	•	40-140	•	30
C12-BZ#8	92	-	40-140	<u>-</u>	30
Cl3-BZ#19	89	<u> </u>	40-140	-	30
Ci3-BZ#18	91	-	40-140	-	30
Cl2-BZ#15	87	-	40-140	-	30
CI4-BZ#54	98	-	40-140	-	30
Cl3-BZ#29	, 88	-	40-140	<u>-</u>	30



08/09/10

Lab Control Sample Analysis Batch Quality Control

Project Name:

Not Specified

Project Number: 17228

Lab Number: L1011335

Report Date:

Parameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM -	Mansfield Lab Associated sample(s):	01-18 Batch:	WG424806-2			
Cl6-BZ#129/#158	94	-	40-140	-		30
CI7-BZ#187	90	-	40-140	-		30
CI7-BZ#183	84	•	40-140	-		30
CI5-BZ#126	68	-	40-140	-		30
CI7-BZ#174	92	-	40-140	-		30
Cl6-BZ#128	90	-	40-140	-		30
CI6-BZ#167	89	-	40-140	-		30
CI8-BZ#202	102	-	40-140	_		30
CI7-BZ#177	85	-	40-140	-		30
CI8-BZ#204/#200-CAL	91		40-140	-		30
CI6-BZ#156	70	-	40-140			30
Cl6-BZ#157	81	-	40-140	•		30
CI7-BZ#180	80	-	40-140	-		30
CI8-BZ#201	88		40-140	-		30
CI7-BZ#170	87	_	40-140	-		30
CI6-BZ#169	72	-	40-140	-		30
Cl9-BZ#208	87	-	40-140	-		30
CI7-BZ#189	74	-	40-140	-		30
CI8-BZ#195	86	•	40-140	-		30
Cl8-BZ#194	78	_	40-140	-		30
CI8-BZ#205	81	-	40-140	-		30



Project Name: Not Specified

Project Number: 17228

Lab Number: L1011335

Report Date: 08/09/10

ırameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
CB Homologs by GC/MS-SIM - I	Mansfield Lab Associated sample(s):	01-18 Batch:	WG424806-2			
CI6-BZ#155	91	-	40-140	-		30
CI4-BZ#70	92	-	40-140			30
CI4-BZ#66	102	•	40-140	-		30
CI5-BZ#101/#90	88	•	40-140	-		30
CI4-BZ#56	100	-	40-140	•		30
Cl5-BZ#99	87	-	40-140	-	·	30
CI5-BZ#87/#111	73	-	40-140	-		30
Cl6-BZ#154	92	-	40-140	•		30
CI5-BZ#110	89	-	40-140	-		30
CI4-BZ#81	92	-	40-140	-		30
CI6-BZ#151	92	-	40-140	•		30
Cl6-BZ#147/#149	88	-	40-140	•		30
CI4-BZ#77	83	-	40-140	-		30
CI5-BZ#107/#123	88	-	40-140	-		30
CI7-BZ#188	85		40-140	-		30
CI5-BZ#118	74		40-140	-		30
CI6-BZ#146	91	-	40-140	-		30
CI5-BZ#114	75	-	40-140	-		30
CI6-BZ#153	100		40-140	-		30
CI5-BZ#105	57	-	40-140	-		30
CI6-BZ#138	78		40-140	-		30



Project Name:

Not Specified

Project Number:

17228

Lab Number:

L1011335

Report Date:

arameter	LCS %Recovery Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	Qual RPD Limits
CB Homologs by GC/MS-SIM - Mansfield La	b Associated sample(s):	01-18 Batch:	WG424806-2		
Cl1-BZ#1	83.	-	40-140	-	30
CL1-BZ#3	86	-	40-140	•	30
Cl2-BZ#4/#10	1.05	•	40-140	-	30
CI2-BZ#8	88		40-140	-	30
Cl3-BZ#19	91		40-140	-	30
Cl3-BZ#18	89	•	40-140	-	30
Cl2-BZ#15	88	•	40-140	-	30
CI4-BZ#54	98	•	40-140	-	30
Cl3-BZ#29	87	-	40-140	-	30
CI4-BZ#50	92	•	40-140	-	30
Cl3-BZ#-31	89	-	40-140	-	30
Cl3-BZ#28	97	- · · · · · · ·	40-140		30
Cl4-BZ#45	94	-	40-140	· — ·	30
Cl4-BZ#52	92	-	40-140	-	30
Cl4-BZ#49	87	•	40-140		30
Cl5-BZ#104	86	-	40-140	-	30
Cl4-BZ#47	98	-	40-140	-	30
CI4-BZ#44	99	-	40-140	-	30
Cl3-BZ#37	62	<u>-</u>	40-140	-	30
CI5-B Z #121/#95/#88	68	-	40-140		30
CI4-BZ#74	87	-	40-140	-	30



Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

Method Blank Analysis Batch Quality Control

Analytical Method: Analytical Date:

1,8270C-SIM 08/07/10 03:54

Analyst:

JS

Extraction Method: EPA 3540C

Extraction Date:

07/30/10 12:02

Cleanup Method1: ----

Cleanup Date1: Cleanup Method2: ----

Cleanup Date2:

Parameter	Result	Qualifier	Units	RL	MDL	
PCB Homologs by GC/MS-S	IM - Mansfield La	b for sample(s	s): 19-28	Batch: WG42	5287-1	
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	****
Trichlorobiphenyls	ND	ŧ	ng/cart	5.00	2.50	
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50	
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	
Total Homologs	ND		ng/cart	5.00	2.50	

		Acceptance			
Surrogate	%Recovery	Qualifier	Criteria		
Cl3-BZ#19-C13	93		50-125		
CI8-BZ#202-C13	84		50-125		



Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

Method Blank Analysis Batch Quality Control

Analytical Method: Analytical Date:

1,8270C-SIM 08/05/10 20:03

Analyst:

JS

Extraction Method: EPA 3540C

Extraction Date:

07/28/10 15:17

Cleanup Method1: ----

Cleanup Date1:

Cleanup Method2: ----

Cleanup Date2:

arameter	Result	Qualifier	Units	RL	MDL
CB Homologs by GC/MS-S	IM - Mansfield La	b for sample(s	s): 01-18	Batch: WG42	4806-1
Monochlorobiphenyls	ND		ng/cart	5.00	2.50
Dichlorobiphenyls	ND		ng/cart	5.00	2.50
Trichlorobiphenyls	ND		ng/cart	5.00	2.50
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50
Heptachlorobiphenyls	ND		ng/cart	5.00	2.50
Octachlorobiphenyls	ND		ng/cart	5.00	2.50
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50
Decachlorobiphenyl	ND		ng/cart	5.00	2.50
Total Homologs	ND		ng/cart	5.00	2.50

			Acceptance	
Surrogate	%Recovery	Qualifier	Criteria	
Cl3-BZ#19-C13	88		50-125	
CI8-BZ#202-C13	84		50-125	



Project Name: Not Specified

Project Number: 17228

Lab Number:

L1011335

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-28

Date Collected:

07/22/10 00:00

Client ID:

95350

Date Received:

07/23/10

Sample Location: Matrix: Not Specified

Field Prep: Extraction Method:

Not Specified EPA 3540C

Analytical Method:

Air Cartridge 1,8270C-SIM 08/07/10 16:10

Extraction Date: 0° Cleanup Method1: -

07/30/10 12:02

Analytical Date: (Analyst:
JS

Cleanup Method1: ----

Cleanup Method2:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM - I	Mansfield Lab				-	
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	10.0		ng/cart	5.00	2.50	2
Trichlorobiphenyls	83.2		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	73.7		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	89.3		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	111		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	31,5		ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Decachlorobiphenyl	ND		ng/cart	5.00	2.50	2
Total Homologs	398		ng/cart	5.00	2.50	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	91		50-125	
CI8-BZ#202-C13	87		50-125	



Project Name:

Not Specified

Lab Number:

L1011335

Project Number:

17228

Report Date:

08/09/10

SAMPLE RESULTS

D

Lab ID:

L1011335-27

Date Collected:

07/22/10 00:00

Client ID:

95349

Date Received:

07/23/10

Sample Location:

Not Specified

Field Prep:

Not Specified

Matrix:

Air Cartridge

Extraction Method:

EPA 3540C

Analytical Method:

1,8270C-SIM

Extraction Date:

07/30/10 12:02

Analytical Date:

Decachlorobiphenyl

Total Homologs

08/07/10 15:03

Cleanup Method1: --

Analyst:

JS

Cleanup Method2:

5.00

5.00

2.50

2.50

2

2

Parameter	Result	Qualifler	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM -	Mansfield Lab	Foreign ray to control of 1995 to 19 Have 11 Have 12 Have 12 Approximate 1995 to 1995	the control of the co	Name Andrewson and the same the administrator and set as		-
Monochlorobiphenyls	ND		ng/cart	5.00	2.50	2
Dichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Trichlorobiphenyls	ND		ng/cart	5.00	2.50	2
Tetrachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Pentachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Hexachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Heptachlorobiphenyls	ND	The second secon	ng/cart	5.00	2.50	2
Octachlorobiphenyls	ND		ng/cart	5.00	2.50	2
Nonachlorobiphenyls	ND		ng/cart	5.00	2.50	2

ng/cart

ng/cart

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Cl3-BZ#19-C13	89		50-125	
CI8-BZ#202-C13	84		50-125	

ND

ND



<u> </u>	/\6:389\10 11:52
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CHAIN OF CUSTODY FORM

Environmental

17 18 19 JUL 10

то:Д_	PHA	PI	117 Fourth Aven Needham, MA 0 ease send invoices to ease send reports to	2494-2725 c ATTN: Accounts Payable ATTN: Data Coordinator
	analysis will be cov a Coordinator - UR	vered by EH&E Purchase Or	der #	1722.8
SAMPLE ID	SAMPLETYPE		IETHOD/NUMBER	OTHER:Time/Date/Vol.
105527	AIR/PUFI	EPA TO-10A	FOR HOMOLOG	15 1293 L
105528	1	<u> </u>		1284 L
105529		·		1317 L
105530				1320 L
105531				1298 L
105532				1320.65 L
105533				1314-
105534				1335.9
105535				1317 6
105536				1320 _
95349	+	+		Ø L
95350	1			
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Special instruc	Standard to Fax results	781-247-4305		acoordinator@eheinc.com
Each signate Relinquished by: Relinquished by:	Pfeller	of Environmental I of (company name	Health & Engineering	-1-1
Received by:	i horse M	of (company name) ALOHA	Date: 7/23/10 1735
Relinquished by	y:	of (company name	e)	Date:
		of (company name	e)	Date:
Lab Data Received by:	•	of Environmental (Health & Engineering	n. Inc. Date:

Page $\frac{2}{}$ of $\frac{2}{}$

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

Serial No:08091011:52

DATE: 22 SUL 10

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue

Needham, MA 02494-2725 Please send invoices to ATTN: Accounts Payable Please send reports to ATTN: Data Coordinator In all correspondence regarding this matter, please refer to EH&E Project # _______________________ The cost of this analysis will be covered by EH&E Purchase Order # ______

	For EH & E Da	ta Coordinator - Uf	rgent data 🗆	
	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
į	105511	AIR PUF	EPA TO -1004 FOR HOMOLOGS	1338 L
2_	105512	1		1341 L
3	105513			1332 4
4	105514			1309.8 4
5	103515			1341 -
6	105516			1320 L
7	105517			1335 レ
8	105518			Ø L
9	105519			1341 L
10	105520			1279
11	105521		·	12.90 -
12	105522	ŕ	·	1287 -
13	105523			1287 _
14	105524			1287 -
15	105525			1293 4
16	105526			1287 L

Special instructions:				•
Standa	ard turn around time	☐ Rush by —	date/time	□ Other —————
	sults //81-247-4305		date/time	
RETU	RN SAMPLES	☐ Electronic tr	ansfer - dațacoord	linator@eheinc.com
-B-Addit/o	nal/report recipient mi	<u>agala Ceheur</u>	ic.com, trega	the elemicon
Each signatory please r	eturn one copy of t	his form to t	he above addr	ess
Relinquished by:	. 0		Engineering, Inc.	Date: 7 22 10
Received by:	of (compar	ny name) _ <i>[}_[</i>	oha	Date: 7/23/10 14/30
Relinquished by:	fof (compar	ny name) ////	rha	Date: 7/23/10 17:35
Received by: Affine fly	of (compar	ny name)	OHA	Date: 7/23/10 1735
Relinquished by:	of (compar	ny name)		Date:
Received by:	of (compai	ny name)		Date:
Lab Data Received by:	of Environ	mental Health &	Engineering, Inc.	Date:
				Page 1 of Z





Detailed Results

Tracking no.: 870423330067

Select time format: 12H

Delivered

Delivered

Signed for by: R.GUITENS

Shipment Dates

Destination

Signature Proof of Delivery

Ship date Aug 17, 2010 Delivery date Aug 18, 2010 9:35 AM

Shipment Facts

Service type

Priority Envelope

Delivered to

Mailroom

Reference

17228

Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Aug 18, 2010 9:35 AM	Delivered		
Aug 18, 2010 8:11 AM	On FedEx vehicle for delivery	SOUTH BOSTON, MA	
Aug 18, 2010 7:06 AM	At local FedEx facility	SOUTH BOSTON, MA	
Aug 17, 2010 11:40 PM	At local FedEx facility	EAST BOSTON, MA	
Aug 17, 2010 9:20 PM	At dest sort facility	EAST BOSTON, MA	
Aug 17, 2010 8:50 PM	Left FedEx origin facility	NEEDHAM, MA	
Aug 17, 2010 6:20 PM	Picked up	NEEDHAM, MA	